=> FILE CAPLUS
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.42 0.42

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FILE COVERS 1907 - 18 Mar 2003 VOL 138 ISS 12 FILE LAST UPDATED: 17 Mar 2003 (20030317/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S TEXTILE OR FABRIC

71021 TEXTILE

76649 TEXTILES

111393 TEXTILE

(TEXTILE OR TEXTILES)

86780 FABRIC

77887 FABRICS

119591 FABRIC

(FABRIC OR FABRICS)

L1 183778 TEXTILE OR FABRIC

=> s fibers or fibres

459729 FIBERS

1591 FIBRES

L2 460121 FIBERS OR FIBRES

=> s film

761574 FILM

622744 FILMS

L3 985603 FILM

(FILM OR FILMS)

=> s solid spherical particles or hollow particles or microcapsules

858730 SOLID

255079 SOLIDS

1048729 SOLID

(SOLID OR SOLIDS)

92739 SPHERICAL

10 SPHERICALS

92745 SPHERICAL

(SPHERICAL OR SPHERICALS)

638045 PARTICLES

1 PARTICLESES

638045 PARTICLES

(PARTICLES OR PARTICLESES)

98 SOLID SPHERICAL PARTICLES

```
(SOLID(W)SPHERICAL(W)PARTICLES)
         54011 HOLLOW
          1063 HOLLOWS
         54877 HOLLOW
                  (HOLLOW OR HOLLOWS)
        638045 PARTICLES
             1 PARTICLESES
        638045 PARTICLES
                  (PARTICLES OR PARTICLESES)
           744 HOLLOW PARTICLES
                  (HOLLOW (W) PARTICLES)
         10983 MICROCAPSULES
         11810 SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULES
=> s ceramics or silicone elastomers or polyurethanes or nitrile rubbers or
chloroprene rubbers or polyvinyl alcohols or pva or silicones or acrylic resins or
ethylene vinyl acetate polymers
        154308 CERAMICS
             2 CERAMICSES
        154308 CERAMICS
                 (CERAMICS OR CERAMICSES)
         83376 SILICONE
         62733 SILICONES
        120215 SILICONE
                 (SILICONE OR SILICONES)
         29121 ELASTOMERS
           790 SILICONE ELASTOMERS
                 (SILICONE(W) ELASTOMERS)
        63978 POLYURETHANES
        49714 NITRILE
        22901 NITRILES
        62519 NITRILE
                 (NITRILE OR NITRILES)
       118844 RUBBERS
         2823 NITRILE RUBBERS
                 (NITRILE (W) RUBBERS)
         7320 CHLOROPRENE
           64 CHLOROPRENES
         7337 CHLOROPRENE
                 (CHLOROPRENE OR CHLOROPRENES)
       118844 RUBBERS
          333 CHLOROPRENE RUBBERS
                 (CHLOROPRENE (W) RUBBERS)
        70744 POLYVINYL
          161 POLYVINYLS
        70859 POLYVINYL
                (POLYVINYL OR POLYVINYLS)
       130430 ALCOHOLS
       167795 ALCS
       225842 ALCOHOLS
                (ALCOHOLS OR ALCS)
          372 POLYVINYL ALCOHOLS
                (POLYVINYL(W)ALCOHOLS)
        10908 PVA
           74 PVAS
        10927 PVA
                (PVA OR PVAS)
       62733 SILICONES
      213672 ACRYLIC
        1206 ACRYLICS
      214035 ACRYLIC
                (ACRYLIC OR ACRYLICS)
      341880 RESINS
        5868 ACRYLIC RESINS
```

```
442280 ETHYLENE
           3220 ETHYLENES
          443840 ETHYLENE
                   (ETHYLENE OR ETHYLENES)
          355224 VINYL
             533 VINYLS
         355387 VINYL
                   (VINYL OR VINYLS)
         437663 ACETATE
          26433 ACETATES
         449223 ACETATE
                   (ACETATE OR ACETATES)
         744662 POLYMERS
             10 POLYMERSES
         744672 POLYMERS
                   (POLYMERS OR POLYMERSES)
            931 ETHYLENE VINYL ACETATE POLYMERS
                   (ETHYLENE (W) VINYL (W) ACETATE (W) POLYMERS)
         298870 CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE
 L5
                RUBBERS OR CHLOROPRENE RUBBERS OR POLYVINYL ALCOHOLS OR PVA OR
                SILICONES OR ACRYLIC RESINS OR ETHYLENE VINYL ACETATE POLYMERS
 => s 2.00 microns to 500 microns
        7643866 2
          88339 00
           4427 MICRONS
         452313 500
           4427 MICRONS
L6
              0 2.00 MICRONS TO 500 MICRONS
                  (2(W)00(W)MICRONS(1W)500(W)MICRONS)
 => s 50 microns
        1637468 50
           4427 MICRONS
             61 50 MICRONS
                  (50(W)MICRONS)
=> s 75 microns
        509978 75
           4427 MICRONS
L8
              9 75 MICRONS
                  (75(W)MICRONS)
=> s 40 microns
       1144980 40
          4427 MICRONS
L9
            37 40 MICRONS
                  (40(W)MICRONS)
=> s 5.0 microns
       5368118 5
       4712414 0
          4427 MICRONS
L10
             6 5.0 MICRONS
                  (5(W)0(W)MICRONS)
=> d his
     (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
         183778 S TEXTILE OR FABRIC
L1
L2
         460121 S FIBERS OR FIBRES
```

(ACRYLIC (W) RESINS)

```
L3
         985603 S FILM
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
 L4
          298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
 L5
 L6
              0 S 2.00 MICRONS TO 500 MICRONS
 L7
              61 S 50 MICRONS
 L8
              9 S 75 MICRONS
 L9
             37 S 40 MICRONS
               6 S 5.0 MICRONS
 L10
 => s substrate
        667047 SUBSTRATE
        314744 SUBSTRATES
 L11
       840130 SUBSTRATE
                  (SUBSTRATE OR SUBSTRATES)
 => d his
      (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
         183778 S TEXTILE OR FABRIC
         460121 S FIBERS OR FIBRES
L_2
L3
         985603 S FILM
         11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L4
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
L5
_{
m L6}
              0 S 2.00 MICRONS TO 500 MICRONS
L7
             61 S 50 MICRONS
L8
              9 S 75 MICRONS
L9
             37 S 40 MICRONS
L10
              6 S 5.0 MICRONS
L11
       840130 S SUBSTRATE
=> s 11 and 12 and 14
       189 L1 AND L2 AND L4
=> s 112 and 15
L13
         48 L12 AND L5
=> s 113 and 110
           0 L13 AND L10
=> s 14 and 110
            0 L4 AND L10
=> s 14 and 17
           1 L4 AND L7
=> d his
     (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
        183778 S TEXTILE OR FABRIC
L1
L2
         460121 S FIBERS OR FIBRES
L3
         985603 S FILM
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L4
L5
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
L6
             0 S 2.00 MICRONS TO 500 MICRONS
L7
             61 S 50 MICRONS
L8
             9 S 75 MICRONS
L9
            37 S 40 MICRONS
L10
             6 S 5.0 MICRONS
       840130 S SUBSTRATE
L11
L12
          189 S L1 AND L2 AND L4
```

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L13
             48 S L12 AND L5
 L14
              0 S L13 AND L10
 L15
              0 S L4 AND L10
 L16
               1 S L4 AND L7
 => s 11 and 13 and 14 and 15
            10 L1 AND L3 AND L4 AND L5
 => d 117 1-10 bib, abs
 L17 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS
     2003:36305 CAPLUS
 DN
     138:91337
 TI
     Hot-press thermally color changeable sheets and thermally color changeable
     articles therewith
 IN
     Matsunami, Nobuaki
     Pilot Ink Co., Ltd., Japan
 PΑ
     Jpn. Kokai Tokkyo Koho, 7 pp.
 SO
     CODEN: JKXXAF
 DT
     Patent
LA
     Japanese
FAN.CNT 1
     JP 2002011007 KIND DATE APPLICATION NO. DATE
                                          -----
    JP 2003011291
                     A2
                            20030115
                                       JP 2002-79982 20020322
PRAI JP 2001-87226 A 20010326
     A substrate is hot pressed with a color changeable sheet, which comprises
     a hot-melt resin film m. 60.degree.-80.degree. and a layer
     thereon contg. a color changeable pigment and a binder resin. Thus, an
     Elphan UH (I) film was coated with a color nonchangeable white
     pigment layer, printed with a UV-curable color nonchangeable blue ink to
     form a blue image, coated with a urethane ink (colorless at >30.degree.
     and black at <30.degree.) contg. color changeable microencapsulated
     pigments to hide the blue image, coated with an acrylic polyol protective
     layer, and hot pressed on a T shirt on the I side. The T shirt showed a
     black color at <30.degree., and at >30.degree., the black disappeared and
     blue appeared.
L17 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS
     2002:539284 CAPLUS
AN
DN
     137:110510
     Heat shock-absorbing materials comprising sheets containing
TT
     microcapsules containing heat shock-absorbing substances and heat
     shock-absorbing fabrics therefrom
     Shimano, Yasuharu; Yamaguchi, Munehide; Mukai, Shoji; Sano, Masahiro;
IN
     Kusamoto, Nobuo
PΑ
     Komatsu Seiren Co., Japan; Idemitsu Technofine Co., Ltd.
     Jpn. Kokai Tokkyo Koho, 9 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                   KIND DATE
                                        APPLICATION NO. DATE
     -----
                          -----
                                          -----
PRAI JP 2000-309414 A

AB The hoof 57
                           20020719
                                         JP 2001-313121 20011010
                          20001010
    The heat shock-absorbing materials (A) comprise sheets contg.
    microcapsules contg. heat shock-absorbing substances and show heat
    shock absorption coeff. .gtoreq.1.2, or the heat-shock absorbing materials
    comprise A materials having the microcapsules having particle
    diam. 5-50 .mu.m, or the heat shock-absorbing materials comprise A
    materials contg. a polymer binder film, or the heat
    shock-absorbing materials comprise A materials having .gtoreq.1 side
    contg. a polyurethane layer and/or PTFE layer, or the heat shock-absorbing
```

materials comprise A materials showing water vapor permeation rate 1000 g/m2-24 h as detd. by CaCl2 method and showing water resistance .gtoreq.500 mmH2O. The heat shock-absorbing fabrics are prepd. by laminating A materials on .gtoreq.1 side of the fabrics. heat-shock absorbing fabrics are useful for insulated clothings and sportswear. A release paper was coated with Himuren Y-210B (moisture-permeable polyurethane) 100, toluene 50, n-octadecane (I)-contg. microcapsule 50 parts and dried to give a film with I content .apprx.50 g/m2. The film was coated with a compn. contg. US 642 (moisture-permeable polyurethane) 100, toluene 50, Coronate HL (polyisocyanate) 10, and catalyst 1 part in a dotted form, pressed together with a nylon tricot for 5 s at 100.degree., and kept 48 h at 60.degree. to give a laminated fabric showing heat shock absorption coeff. 2.8 as detd. by increasing the temp. of the material from 25.degree. to 35.degree. and exhibiting heat shock coeff. 2.3 as detd. by decreasing the temp. of the material from 25.degree. to 15.degree..

```
L17 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2003 ACS
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AN 2002:36515 CAPLUS

DN 136:71226

TI Waterproof heat-retaining fabrics

IN Zenda, Tatsuya; Koizumi, Makoto; Tajima, Shoichi; Okajima, Kazuyoshi; Shimano, Yasunao; Yamaguchi, Munehide

PA KS Dyeing & Printing Co., Japan; Komatsu Seiren Co.

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002011833 A2 20020115 JP 2000-197879 20000627

PRAI JP 2000-197879 20000627

AB The fabrics have waterproof resin films contg.

microcapsules (particle size 10-200 .mu.m) and IR absorbers.

Thus, a nylon fabric was treated with Asahiguard AG 710 (water repellent) and coated with an acrylate resin compn. contg. tin antimonate and thermally expandable microcapsules (acrylonitrile polymers contg. pentane) to give a waterproof heat-retaining fabric.

L17 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 2002:10364 CAPLUS

DN 136:54995

TI Moisture-permeable, waterproof, and heat-insulating **fabric** and its resin laminate

IN Zenda, Tatsuya; Koizumi, Makoto; Tajima, Syouiti; Okajima, Kazuyoshi; Shimano, Yasunao; Yamaguchi, Munehide

PA KS Dyeing & Printing Co., Ltd., Japan; Komatsu Seiren Co., Ltd.

SO PCT Int. Appl., 24 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PΙ

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2002000433 A1 20020103 WO 2001-JP4706 20010604

W: JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE, TR

PRAI JP 2000-197878 A 20000627

AB The title laminates, with lightwt. and useful for garments, skiwear, tents, etc. (no data), comprise a base **fabric** (e.g., of polyamide fibers, polyester fibers), on .gtoreq.1 surface laminated with a

moisture-permeable, waterproof, and heat-insulating resin film (e.g., of polyether-polyurethanes) contg. microcapsules (e.g., pentane encapsulated by polyacrylonitrile) and/or an IR ray absorbing agent (e.g., Zn antimonate), and optionally a releasing paper. THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2003 ACS AN 2001:847521 CAPLUS DN 136:7760 ΤI Film material-based decorative panels for interiors and exteriors of buildings Minagawa, Mitsuo; Minagawa, Osamu; Shimada, Toshiaki IN Libor K. K., Japan; Taiyo Kogyo Co., Ltd. Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF DT Patent LA Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE --------------PRAI JP 2000-185437
AB Title page 1 20011122 JP 2000-185437 20000518 20000518 Title panels are prepd. by coating fabrics with compns. contg. waterproof synthetic resin emulsions, inorg. binders, pulverized natural stone particles or metallic powders, pigments, and ultrafine ceramic hollow particles to form decorative surface layers, and fixed with frames. A glass fiber cloth was coated with a compn. contq. Lipo Mighty, alkali metal silicates, pulverized granite particles, TiO2, additives, and hollow ceramic particles to form a film material, which was fixed with an Al frame to form a panel. L17 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2003 ACS AN 2001:814079 CAPLUS DN 135:345828 ΤI Production of textiles with low skin friction IN Tebbe, Gerold PA Deotexis Inc., USA SO Eur. Pat. Appl., 11 pp. CODEN: EPXXDW DT Patent I,A German FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----------EP 1152080 A2 20011107 EP 2001-107351 20010324 PΤ R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO A1 20011108 DE 10023629 DE 2000-10023629 20000513 DE 10023629 C2 20020718 US 2001046826 A1 20011129 US 2001~844415 20010427 PRAI DE 2000-10021000 A 20000429 DE 2000-10023629 A 20000513 AΒ The title textiles, giving greater comfort in wearing, comprise ground structures or film-ground structures, the ground structure having a working layer on .gtoreq.1 side, e.g., having regions of spaced particles or contg. spherical particles. Drawings illustrating the textile structure are included. L17 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2003 ACS AN 2000:267132 CAPLUS DN 132:289944 ΤI Functional microcapsules containing catechins and/or saponins

and their composites

```
IN
     Okamoto, Hiroshi; Inoue, Shinichi; Miyamatsu, Hiroki; Yoshida, Kimi
PA
     Elb K. K., Japan
     Jpn. Kokai Tokkyo Koho, 6 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LΑ
     Japanese
FAN.CNT 1
                    KIND DATE
     PATENT NO.
                                        APPLICATION NO. DATE
     -----
                                         -----
PI JP 2000119106 A2 20000425
PRAI JP 1998-287783 19981009
                                         JP 1998-287783 19981009
     The microcapsules comprise capsule wall of org. polymers and
     catechins and/or saponins as encapsulated materials. The
     microcapsules are further composited by supporting on supports
     such as textile products, films, sheets, foils, paper,
     ceramics, metals, etc., or mixing with base materials such as
     food, beverages, condiments, paints, coatings, inks, adhesives, cosmetics,
     molding resins, hydraulic compns., etc. A mixt. of isocyanate
     group-contg. polyurethane, PhCl, and catechins or tea seed saponins was
     added dropwise to an aq. gelatin soln. under stirring and the reaction
     mixt. was further stirred at 50.degree. for 5 h to give 3-10-.mu.m
     microcapsules. A cotton fabric was treated with a
     compn. contg. Rikensol A 263 (binder resin), H2O, and the
     microcapsules at room temp. for 8-10 min and then dried at
     80.degree. for 5 min. The treated cotton fabric significantly
     inhibited growth of fungi.
L17 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
     1999:751578 CAPLUS
DN
     132:4047
TT
     Fire-resistant thermoplastic compositions containing phosphorus compounds
     for fire-resistant fabrics
IN
    Takeda, Masanobu; Seki, Masao
     Toray Industries, Inc., Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 10 pp.
     CODEN: JKXXAF
DT
   Patent
LA
     Japanese
FAN.CNT 1
                  KIND DATE
     PATENT NO.
                                  APPLICATION NO. DATE
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                                        -----
PI JP 11323015 A2 19991126
PRAI JP 1998-70291 19980319
                                        JP 1999-73528 19990318
    MARPAT 132:4047
AB
    The nonhalogen compns. having good fire resistance, film
     formability and film strength comprise phosphorus fireproofing
     agents (e.g., phenylene tetra-Ph phosphate) in microcapsules and
     thermoplastic resins (e.g., ethylene-vinyl acetate copolymer). The
     fire-resistant fabrics, useful for construction materials,
     tents, and canvas (no data), are manufd. by coated on .gtoreg.1 side of
    the fabrics (e.g., polyester fabric) with the compn.
L17 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
    1999:505770 CAPLUS
DN
    131:131215
    Ink-jet-printable image-transfer medium, process for transferring image,
TI
    and cloth imaged by this process
ΙN
    Yuko, Sato; Masahiko, Higuma; Motokazu, Kobayashi; Yoshiyuki, Shino
PA
    Canon Kabushiki Kaisha, Japan
SO
    Eur. Pat. Appl., 32 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
```

FAN CNT 1

```
PATENT NO.
                                        APPLICATION NO. DATE
                   KIND DATE
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                                        -----
    EP 933226 A2
PΙ
                          19990804
                                        EP 1999-101500 19990127
    EP 933226
                         19991110
                     A3
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    US 2002098326 A1 20020725
JP 11277897 A2 19991012
JP 11314452 A2 19991116
                                        US 1999-234410 19990121
                                        JP 1999-18310 19990127
                                        JP 1999-18303 19990127
PRAI JP 1998-16220 A 19980128
JP 1998-16221 A 19980128
```

Disclosed is an ink-jet-printable image-transfer medium, comprising a base material, and a releasing layer and a transfer layer, both, provided on the base material, wherein the transfer layer comprises fine particles of a water-insol. thermoplastic resin, a water-insol. thermoplastic resin binder and a crosslinking agent coated with a thermoplastic resin. Optionally, the transfer film consists of a layer contg. the crosslinking agent and a binder not reactive with the crosslinking agent and a crosslinking agent-free layer contg. a binder reactive with the crosslinking agent. The transfer medium exhibits good storage stability, and the transferred images exhibits high optical d., clearness, and washfastness. A typical transfer medium was prepd. from a compn. contg. 100 parts AC Polyethy A-6 (ethylene resin, particle size 6 .mu.m), 40 parts Hytec E-8778 (acrylic acid-ethylene copolymer) binder (solids content 10 parts), microcapsules [contg. Epiclon 3050 (epoxy crosslinker) core and A-C6 (polyethylene) shell, particle size 10 .mu.m] 10, silica (particle size 3 .mu.m) 2, cationic resin (solids content 3 parts) 10, surfactant (solids content 1 part) 3, and water 10 parts.

L17 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 1994:272627 CAPLUS

DN 120:272627

TΙ Transfer sheets imparting three-dimensional look

IN Kitagawa, Yosuke; Tagino, Nobuyuki

PΑ Matsui Shikiso Kagaku Kogyosho, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

Japanese T.A

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 05287686	A2	19931102	JP 1992-109254	19920401
PRAI	JP 1992-109254		19920401		

AB The title sheets which are applicable by heat and pressure (e.g. by iron or hot press) to a surface (e.g. fabric) for an attractive look, comprise a base layer (A), a release layer (B), a design layer (C), an embossed layer (D) with 3-D patterns, and an adhesive layer (E) wherein the C is obtained from soft film-forming thermoplastic polymer contg. heat-expandable particles and optionally coloring agents. transfer sheet comprised a glassine paper (A), a silicone release layer (B), a Crisvon 3156 layer (C) applied by silk-printing using MIBK soln. contg. isophorone and pigments, a Superflex E-2000 (D) layer contg. microcapsules and other pigments, and a hot-melt adhesive layer (E). Affixing the transfer sheet by heat and pressure from the glassine paper side to a fabric gave a 3-D design with good appearance and washfastness.

## => d his

(FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)

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L1
          183778 S TEXTILE OR FABRIC
 L2
          460121 S FIBERS OR FIBRES
 L3
          985603 S FILM
 L4
           11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
 L5
          298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
 L6
               0 S 2.00 MICRONS TO 500 MICRONS
 L7
              61 S 50 MICRONS
 L8
               9 S 75 MICRONS
 L9
              37 S 40 MICRONS
 L10
               6 S 5.0 MICRONS
 L11
          840130 S SUBSTRATE
 L12
             189 S L1 AND L2 AND L4
 L13
              48 S L12 AND L5
 L14
               0 S L13 AND L10
 L15
               0 S L4 AND L10
 L16
               1 S L4 AND L7
 L17
              10 S L1 AND L3 AND L4 AND L5
 => d scan 113 1-48
 '1-48' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'
       48 ANSWERS
                   CAPLUS COPYRIGHT 2003 ACS
     ICM B32B027-18
 IC
     ICS D06M011-00; D06M023-12; D06M015-564
CC
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 40
ΤI
     Moisture-permeable, waterproof, and heat-insulating fabric and
     its resin laminate
ST
     moisture permeable waterproof heat insulating polyurethane laminate;
     skiwear polyamide fabric polyurethane film laminate; polyester
     fabric polyurethane film laminate garment; pentane microcapsule
     polyamide fabric polyurethane laminate; zinc antimonate IR
     absorbent polyurethane laminate
IT
     Optical materials
         (IR absorbers, polyurethane films contg.; moisture-permeable,
        waterproof, and heat-insulating fabric and resin laminate)
IT
     IR materials
        (absorbers, polyurethane films contg.; moisture-permeable, waterproof,
        and heat-insulating fabric and resin laminate)
     Polyamide fibers, uses
IT
     Polyester fibers, uses
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (fabrics; moisture-permeable, waterproof, and heat-insulating
        fabric and resin laminate)
ΙT
     Adhesives
        (hot-melt, for lamination; moisture-permeable, waterproof, and
        heat-insulating fabric and resin laminate)
IT
     Parting materials
     Thermal insulators
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
ΙT
     Laminated plastics, properties
     RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
TΤ
     Silica gel, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
IT
    Microcapsules
        (pentane encapsulated by polyacrylonitrile, polyurethane films contg.;
       moisture-permeable, waterproof, and heat-insulating fabric
       and resin laminate)
```

```
IT
      Polyurethanes, uses
      RL: PRP (Properties); TEM (Technical or engineered material use); USES
      (Uses)
         (polyether-, films; moisture-permeable, waterproof, and heat-insulating
         fabric and resin laminate)
 IT
      53125-59-0, Zinc antimonate
     RL: MOA (Modifier or additive use); TEM (Technical or engineered material
     use); USES (Uses)
         (IR absorbents, polyurethane films contg.; moisture-permeable,
        waterproof, and heat-insulating fabric and resin laminate)
 IT
     141444-27-1, Resamine NE
     RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
     reagent); USES (Uses)
         (crosslinking agents, polyurethane films contg.; moisture-permeable,
        waterproof, and heat-insulating fabric and resin laminate)
IT
     37293-38-2, Coronate HL
     RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
     reagent); USES (Uses)
         (crosslinking agents, polyurethane-based adhesives contq.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
     109-66-0, Pentane, uses
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
        (encapsulated by polyacrylonitrile, polyurethane films contg.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
IT
     25014-41-9, Polyacrylonitrile
     RL: TEM (Technical or engineered material use); USES (Uses)
        (pentane encapsulated by, polyurethane films contg.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
The following are valid formats:
ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data and PI table (default)
CAN ----- List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ----- AN, PI and PRAI in table, plus Patent Family data
FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ----- PI, SO
SAM ----- CC, SX, TI, ST, IT
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
             SCAN must be entered on the same line as the DISPLAY,
             e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB, IPC, and NCL
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IMAX ----- MAX, indented with text labels
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
```

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FILE COVERS 1907 - 18 Mar 2003 VOL 138 ISS 12 FILE LAST UPDATED: 17 Mar 2003 (20030317/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 15:19:52 ON 18 MAR 2003)

FILE 'CAPLUS' ENTERED AT 15:20:19 ON 18 MAR 2003

=> s textile or fabric

71021 TEXTILE

76649 TEXTILES

111393 TEXTILE

(TEXTILE OR TEXTILES)

86780 FABRIC

77887 FABRICS

119591 FABRIC

(FABRIC OR FABRICS)

L1 183778 TEXTILE OR FABRIC

=> s fibers or fibres

459729 FIBERS

1591 FIBRES

L2 460121 FIBERS OR FIBRES

=> s solid spherical particles or hollow particles or microcapsules

858730 SOLID

255079 SOLIDS

1048729 SOLID

(SOLID OR SOLIDS)

92739 SPHERICAL

10 SPHERICALS

92745 SPHERICAL

(SPHERICAL OR SPHERICALS)

638045 PARTICLES

1 PARTICLESES

638045 PARTICLES

(PARTICLES OR PARTICLESES)

98 SOLID SPHERICAL PARTICLES

(SOLID(W)SPHERICAL(W)PARTICLES)

54011 HOLLOW

1063 HOLLOWS

54877 HOLLOW

(HOLLOW OR HOLLOWS)

638045 PARTICLES

1 PARTICLESES

638045 PARTICLES

(PARTICLES OR PARTICLESES)

744 HOLLOW PARTICLES

(HOLLOW (W) PARTICLES)

10983 MICROCAPSULES

```
=> s 11 and 12 and 13
```

L4 189 L1 AND L2 AND L3

=> s ceramics or silicone elastomers or polyurethanes or nitrile rubbers or chloroprene rubbers or polyvinyl alcohols or silicones or acrylic resins or ethylene vinyl acetate polymers

154308 CERAMICS

2 CERAMICSES

154308 CERAMICS

(CERAMICS OR CERAMICSES)

83376 SILICONE

62733 SILICONES

120215 SILICONE

(SILICONE OR SILICONES)

29121 ELASTOMERS

790 SILICONE ELASTOMERS

(SILICONE (W) ELASTOMERS)

63978 POLYURETHANES

49714 NITRILE

22901 NITRILES

62519 NITRILE

(NITRILE OR NITRILES)

118844 RUBBERS

2823 NITRILE RUBBERS

(NITRILE (W) RUBBERS)

7320 CHLOROPRENE

64 CHLOROPRENES

7337 CHLOROPRENE

(CHLOROPRENE OR CHLOROPRENES)

118844 RUBBERS

333 CHLOROPRENE RUBBERS

(CHLOROPRENE (W) RUBBERS)

70744 POLYVINYL

161 POLYVINYLS

70859 POLYVINYL

(POLYVINYL OR POLYVINYLS)

130430 ALCOHOLS

167795 ALCS

225842 ALCOHOLS

(ALCOHOLS OR ALCS)

372 POLYVINYL ALCOHOLS

(POLYVINYL (W) ALCOHOLS)

62733 SILICONES

213672 ACRYLIC

1206 ACRYLICS

214035 ACRYLIC

(ACRYLIC OR ACRYLICS)

341880 RESINS

5868 ACRYLIC RESINS

(ACRYLIC(W) RESINS)

442280 ETHYLENE

3220 ETHYLENES

443840 ETHYLENE

(ETHYLENE OR ETHYLENES)

355224 VINYL

533 VINYLS

355387 VINYL

(VINYL OR VINYLS)

437663 ACETATE

26433 ACETATES

449223 ACETATE

(ACETATE OR ACETATES)

744662 POLYMERS 10 POLYMERSES 744672 POLYMERS (POLYMERS OR POLYMERSES) 931 ETHYLENE VINYL ACETATE POLYMERS (ETHYLENE (W) VINYL (W) ACETATE (W) POLYMERS) L5 288519 CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE RUBBERS OR CHLOROPRENE RUBBERS OR POLYVINYL ALCOHOLS OR SILICONE S OR ACRYLIC RESINS OR ETHYLENE VINYL ACETATE POLYMERS => d his (FILE 'HOME' ENTERED AT 15:19:52 ON 18 MAR 2003) FILE 'CAPLUS' ENTERED AT 15:20:19 ON 18 MAR 2003 183778 S TEXTILE OR FABRIC 460121 S FIBERS OR FIBRES 11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE L3 L4 189 S L1 AND L2 AND L3 288519 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R L5 => s 14 and 15 L6 48 L4 AND L5 => s 5.00 microns 5368118 5 88339 00 4427 MICRONS 0 5.00 MICRONS L7(5(W)00(W)MICRONS) => s 5 microns 5368118 5 4427 MICRONS L8166 5 MICRONS (5(W)MICRONS) => s 16 and 18 L9 0 L6 AND L8 => s 14 and 18 L100 L4 AND L8 => d 16 bib L6 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2003 ACS 2003:68316 CAPLUS AN DN 138:123552 TIManufacture of substrate for sunshade in automobile IN Ikeda, Akihiro; Naito, Takayuki; Kato, Masanori; Kitayama, Nobuyuki Howa Seni Kogyo Co., Ltd., Japan; Fuji Kobunshi Co., Ltd. PA Jpn. Kokai Tokkyo Koho, 5 pp. SO CODEN: JKXXAF DT Patent LAJapanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ------------PI JP 2003025360 A2 20030129 PRAI JP 2001-217136 20010717 JP 2001-217136 20010717

=> FILE CAPLUS COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.42 0.42

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FILE COVERS 1907 - 18 Mar 2003 VOL 138 ISS 12 FILE LAST UPDATED: 17 Mar 2003 (20030317/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S TEXTILE OR FABRIC

71021 TEXTILE

76649 TEXTILES

111393 TEXTILE

(TEXTILE OR TEXTILES)

86780 FABRIC

77887 FABRICS

119591 FABRIC

(FABRIC OR FABRICS)

L1 183778 TEXTILE OR FABRIC

=> s fibers or fibres

459729 FIBERS

1591 FIBRES

L2 460121 FIBERS OR FIBRES

=> s film

761574 FILM

622744 FILMS

L3 985603 FILM

(FILM OR FILMS)

=> s solid spherical particles or hollow particles or microcapsules

858730 SOLID

255079 SOLIDS

1048729 SOLID

(SOLID OR SOLIDS)

92739 SPHERICAL

10 SPHERICALS

92745 SPHERICAL

(SPHERICAL OR SPHERICALS)

638045 PARTICLES

1 PARTICLESES

638045 PARTICLES

(PARTICLES OR PARTICLESES)

98 SOLID SPHERICAL PARTICLES

```
(SOLID (W) SPHERICAL (W) PARTICLES)
         54011 HOLLOW
          1063 HOLLOWS
         54877 HOLLOW
                 (HOLLOW OR HOLLOWS)
        638045 PARTICLES
             1 PARTICLESES
        638045 PARTICLES
                 (PARTICLES OR PARTICLESES)
           744 HOLLOW PARTICLES
                 (HOLLOW (W) PARTICLES)
         10983 MICROCAPSULES
L4
         11810 SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULES
=> s ceramics or silicone elastomers or polyurethanes or nitrile rubbers or
chloroprene rubbers or polyvinyl alcohols or pva or silicones or acrylic resins or
ethylene vinyl acetate polymers
        154308 CERAMICS
             2 CERAMICSES
        154308 CERAMICS
                 (CERAMICS OR CERAMICSES)
         83376 SILICONE
         62733 SILICONES
        120215 SILICONE
                 (SILICONE OR SILICONES)
         29121 ELASTOMERS
           790 SILICONE ELASTOMERS
                 (SILICONE (W) ELASTOMERS)
         63978 POLYURETHANES
         49714 NITRILE
         22901 NITRILES
         62519 NITRILE
                 (NITRILE OR NITRILES)
        118844 RUBBERS
          2823 NITRILE RUBBERS
                 (NITRILE(W) RUBBERS)
          7320 CHLOROPRENE
           64 CHLOROPRENES
          7337 CHLOROPRENE
                 (CHLOROPRENE OR CHLOROPRENES)
        118844 RUBBERS
          333 CHLOROPRENE RUBBERS
                 (CHLOROPRENE (W) RUBBERS)
        70744 POLYVINYL
          161 POLYVINYLS
        70859 POLYVINYL
                 (POLYVINYL OR POLYVINYLS)
       130430 ALCOHOLS
       167795 ALCS
       225842 ALCOHOLS
                 (ALCOHOLS OR ALCS)
          372 POLYVINYL ALCOHOLS
                (POLYVINYL(W)ALCOHOLS)
        10908 PVA
           74 PVAS
        10927 PVA
                 (PVA OR PVAS)
        62733 SILICONES
       213672 ACRYLIC
         1206 ACRYLICS
       214035 ACRYLIC
                 (ACRYLIC OR ACRYLICS)
       341880 RESINS
```

5868 ACRYLIC RESINS

```
(ACRYLIC (W) RESINS)
        442280 ETHYLENE
          3220 ETHYLENES
         443840 ETHYLENE
                  (ETHYLENE OR ETHYLENES)
        355224 VINYL
            533 VINYLS
        355387 VINYL
                  (VINYL OR VINYLS)
        437663 ACETATE
         26433 ACETATES
        449223 ACETATE
                  (ACETATE OR ACETATES)
        744662 POLYMERS
            10 POLYMERSES
        744672 POLYMERS
                  (POLYMERS OR POLYMERSES)
            931 ETHYLENE VINYL ACETATE POLYMERS
                  (ETHYLENE (W) VINYL (W) ACETATE (W) POLYMERS)
L5
        298870 CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE
                RUBBERS OR CHLOROPRENE RUBBERS OR POLYVINYL ALCOHOLS OR PVA OR
                SILICONES OR ACRYLIC RESINS OR ETHYLENE VINYL ACETATE POLYMERS
=> s 2.00 microns to 500 microns
       7643866 2
          88339 00
          4427 MICRONS
        452313 500
          4427 MICRONS
             0 2.00 MICRONS TO 500 MICRONS
L6
                  (2(W)00(W)MICRONS(1W)500(W)MICRONS)
=> s 50 microns
       1637468 50
          4427 MICRONS
            61 50 MICRONS
L7
                  (50 (W) MICRONS)
=> s 75 microns
        509978 75
          4427 MICRONS
L8
             9 75 MICRONS
                 (75 (W) MICRONS)
=> s 40 microns
       1144980 40
          4427 MICRONS
            37 40 MICRONS
L9
                 (40(W)MICRONS)
=> s 5.0 microns
       5368118 5
       4712414 0
          4427 MICRONS
L10
             6 5.0 MICRONS
                 (5(W)0(W)MICRONS)
=> d his
     (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
         183778 S TEXTILE OR FABRIC
L1
L2
         460121 S FIBERS OR FIBRES
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L3
        985603 S FILM
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L4
L_5
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
              0 S 2.00 MICRONS TO 500 MICRONS
L6
             61 S 50 MICRONS
L7
             9 S 75 MICRONS
rs
L9
             37 S 40 MICRONS
L10
             6 S 5.0 MICRONS
=> s substrate
       667047 SUBSTRATE
        314744 SUBSTRATES
       840130 SUBSTRATE
                 (SUBSTRATE OR SUBSTRATES)
=> d his
     (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
        183778 S TEXTILE OR FABRIC
L1
         460121 S FIBERS OR FIBRES
L2
Ь3
        985603 S FILM
L4
         11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
L5
L6
             0 S 2.00 MICRONS TO 500 MICRONS
L7
             61 S 50 MICRONS
L8
             9 S 75 MICRONS
L9
             37 S 40 MICRONS
             6 S 5.0 MICRONS
L10
L11
       840130 S SUBSTRATE
=> s 11 and 12 and 14
         189 L1 AND L2 AND L4
=> s 112 and 15
         48 L12 AND L5
L13
=> s 113 and 110
         0 L13 AND L10
L14
=> s 14 and 110
            0 L4 AND L10
=> s 14 and 17
           1 L4 AND L7
L16
=> d his
     (FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)
     FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
L1
        183778 S TEXTILE OR FABRIC
L2
         460121 S FIBERS OR FIBRES
L3
         985603 S FILM
         11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L5
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
              0 S 2.00 MICRONS TO 500 MICRONS
L6
L7
             61 S 50 MICRONS
             9 S 75 MICRONS
L8
L9
             37 S 40 MICRONS
            6 S 5.0 MICRONS
L10
       840130 S SUBSTRATE
L11
        189 S L1 AND L2 AND L4
L12
```

```
48 S L12 AND L5
              0 S L13 AND L10
L14
L15
              0 S L4 AND L10
L16
              1 S L4 AND L7
=> s 11 and 13 and 14 and 15
            10 L1 AND L3 AND L4 AND L5
=> d 117 1-10 bib, abs
L17 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
     2003:36305 CAPLUS
DN
     138:91337
TI
     Hot-press thermally color changeable sheets and thermally color changeable
     articles therewith
IN
     Matsunami, Nobuaki
PA
     Pilot Ink Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 7 pp.
SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 2003011291 A2 20030115
PRAI JP 2001-87226 A 20010326
                           20030115
                                       JP 2002-79982 20020322
     A substrate is hot pressed with a color changeable sheet, which comprises
     a hot-melt resin film m. 60.degree.-80.degree. and a layer
     thereon contg. a color changeable pigment and a binder resin. Thus, an
     Elphan UH (I) film was coated with a color nonchangeable white
     pigment layer, printed with a UV-curable color nonchangeable blue ink to
     form a blue image, coated with a urethane ink (colorless at >30.degree.
     and black at <30.degree.) contg. color changeable microencapsulated
     pigments to hide the blue image, coated with an acrylic polyol protective
     layer, and hot pressed on a T shirt on the I side. The T shirt showed a
     black color at <30.degree., and at >30.degree., the black disappeared and
     blue appeared.
L17 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
     2002:539284 CAPLUS
DN
     137:110510
TI
     Heat shock-absorbing materials comprising sheets containing
     microcapsules containing heat shock-absorbing substances and heat
     shock-absorbing fabrics therefrom
     Shimano, Yasuharu; Yamaguchi, Munehide; Mukai, Shoji; Sano, Masahiro;
IN
     Kusamoto, Nobuo
PA
     Komatsu Seiren Co., Japan; Idemitsu Technofine Co., Ltd.
SO
     Jpn. Kokai Tokkyo Koho, 9 pp.
     CODEN: JKXXAF
DT
     Patent
LΑ
    Japanese
FAN.CNT 1
                                        APPLICATION NO. DATE
     PATENT NO. KIND DATE
     PATENT NO. KIND DATE
                                          -----
PI JP 2002201571 A2 20020719
PRAI JP 2000-309414 A 20001010
                                         JP 2001-313121 20011010
    The heat shock-absorbing materials (A) comprise sheets contg.
    microcapsules contg. heat shock-absorbing substances and show heat
    shock absorption coeff. .gtoreq.1.2, or the heat-shock absorbing materials
    comprise A materials having the microcapsules having particle
    diam. 5-50 .mu.m, or the heat shock-absorbing materials comprise A
    materials contg. a polymer binder film, or the heat
```

shock-absorbing materials comprise A materials having .gtoreq.1 side

contg. a polyurethane layer and/or PTFE layer, or the heat shock-absorbing

materials comprise A materials showing water vapor permeation rate 1000 g/m2-24 h as detd. by CaCl2 method and showing water resistance .gtoreq.500 mmH2O. The heat shock-absorbing fabrics are prepd. by laminating A materials on .gtoreq.1 side of the fabrics. The heat-shock absorbing fabrics are useful for insulated clothings and sportswear. A release paper was coated with Himuren Y-210B (moisture-permeable polyurethane) 100, toluene 50, n-octadecane (I)-contg. microcapsule 50 parts and dried to give a film with I content .apprx.50 g/m2. The film was coated with a compn. contg. US 642 (moisture-permeable polyurethane) 100, toluene 50, Coronate HL (polyisocyanate) 10, and catalyst 1 part in a dotted form, pressed together with a nylon tricot for 5 s at 100.degree., and kept 48 h at 60.degree. to give a laminated fabric showing heat shock absorption coeff. 2.8 as detd. by increasing the temp. of the material from 25.degree. to 35.degree. and exhibiting heat shock coeff. 2.3 as detd. by decreasing the temp. of the material from 25.degree. to 15.degree..

```
L17 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2003 ACS
```

AN 2002:36515 CAPLUS

DN 136:71226

TI Waterproof heat-retaining fabrics

IN Zenda, Tatsuya; Koizumi, Makoto; Tajima, Shoichi; Okajima, Kazuyoshi; Shimano, Yasunao; Yamaguchi, Munehide

PA KS Dyeing & Printing Co., Japan; Komatsu Seiren Co.

SO Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2002011833 A2 20020115 JP 2000-197879 20000627

PRAI JP 2000-197879 20000627

The fabrics have waterproof resin films contg.

microcapsules (particle size 10-200 .mu.m) and IR absorbers.

Thus, a nylon fabric was treated with Asahiguard AG 710 (water repellent) and coated with an acrylate resin compn. contg. tin antimonate and thermally expandable microcapsules (acrylonitrile polymers contg. pentane) to give a waterproof heat-retaining fabric.

L17 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2003 ACS

AN 2002:10364 CAPLUS

DN 136:54995

TI Moisture-permeable, waterproof, and heat-insulating fabric and its resin laminate

IN Zenda, Tatsuya; Koizumi, Makoto; Tajima, Syouiti; Okajima, Kazuyoshi; Shimano, Yasunao; Yamaguchi, Munehide

PA KS Dyeing & Printing Co., Ltd., Japan; Komatsu Seiren Co., Ltd.

SO PCT Int. Appl., 24 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002000433 A1 20020103 WO 2001-JP4706 20010604

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

PRAI JP 2000-197878 A 20000627

AB The title laminates, with lightwt. and useful for garments, skiwear, tents, etc. (no data), comprise a base **fabric** (e.g., of polyamide fibers, polyester fibers), on .gtoreq.1 surface laminated with a

moisture-permeable, waterproof, and heat-insulating resin film (e.g., of polyether-polyurethanes) contg. microcapsules (e.g., pentane encapsulated by polyacrylonitrile) and/or an IR ray absorbing agent (e.g., Zn antimonate), and optionally a releasing paper. RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 5 OF 10 CAPLUS COPYRIGHT 2003 ACS AN 2001:847521 CAPLUS DN 136:7760 TT Film material-based decorative panels for interiors and exteriors of buildings ΙN Minagawa, Mitsuo; Minagawa, Osamu; Shimada, Toshiaki PA Libor K. K., Japan; Taiyo Kogyo Co., Ltd. SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF DT Patent LΑ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----- ---------JP 2001323630 A2 20011122 JP 2000-185437 20000518 PRAI JP 2000-185437 20000518 Title panels are prepd. by coating fabrics with compns. contg. waterproof synthetic resin emulsions, inorg. binders, pulverized natural stone particles or metallic powders, pigments, and ultrafine ceramic hollow particles to form decorative surface layers, and fixed with frames. A glass fiber cloth was coated with a compn. contq. Lipo Mighty, alkali metal silicates, pulverized granite particles, TiO2, additives, and hollow ceramic particles to form a film material, which was fixed with an Al frame to form a panel. L17 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2003 ACS AN 2001:814079 CAPLUS DN 135:345828 TI Production of textiles with low skin friction IN Tebbe, Gerold PΑ Deotexis Inc., USA Eur. Pat. Appl., 11 pp. SO CODEN: EPXXDW Patent LA German FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE -----------A2 20011107 EP 1152080 EP 2001-107351 20010324 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO DE 10023629 Al 20011108 DE 2000-10023629 20000513 DE 10023629 C2 20020718 US 2001046826 Al 20011129 US 2001-844415 20010427 PRAI DE 2000-10021000 A 20000429 DE 2000-10023629 A 20000513 The title textiles, giving greater comfort in wearing, comprise ground structures or film-ground structures, the ground structure having a working layer on .gtoreq.1 side, e.g., having regions of spaced particles or contg. spherical particles. Drawings illustrating the textile structure are included.

- L17 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2003 ACS
- AN 2000:267132 CAPLUS
- DN 132:289944

 $\mathsf{D}\mathbf{T}$ 

PΤ

TI Functional microcapsules containing catechins and/or saponins and their composites

```
Okamoto, Hiroshi; Inoue, Shinichi; Miyamatsu, Hiroki; Yoshida, Kimi
 IN
 PA
      Elb K. K., Japan
 SO
      Jpn. Kokai Tokkyo Koho, 6 pp.
      CODEN: JKXXAF
 DT
      Patent
 LΑ
     Japanese
 FAN.CNT 1
      JP 2000119106
                                         -----
      JP 2000119106 A2 20000425
 PΙ
                                          JP 1998-287783 19981009
 PRAI JP 1998-287783 19981009
     The microcapsules comprise capsule wall of org. polymers and
      catechins and/or saponins as encapsulated materials. The
     microcapsules are further composited by supporting on supports
     such as textile products, films, sheets, foils, paper,
     ceramics, metals, etc., or mixing with base materials such as
      food, beverages, condiments, paints, coatings, inks, adhesives, cosmetics,
     molding resins, hydraulic compns., etc. A mixt. of isocyanate
     group-contg. polyurethane, PhCl, and catechins or tea seed saponins was
     added dropwise to an aq. gelatin soln. under stirring and the reaction
     mixt. was further stirred at 50.degree. for 5 h to give 3-10-.mu.m
     microcapsules. A cotton fabric was treated with a
     compn. contg. Rikensol A 263 (binder resin), H2O, and the
     microcapsules at room temp. for 8-10 min and then dried at
     80.degree. for 5 min. The treated cotton fabric significantly
     inhibited growth of fungi.
L17 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
     1999:751578 CAPLUS
DN
     132:4047
TI
     Fire-resistant thermoplastic compositions containing phosphorus compounds
     for fire-resistant fabrics
IN
     Takeda, Masanobu; Seki, Masao
PA
     Toray Industries, Inc., Japan
SO
     Jpn. Kokai Tokkyo Koho, 10 pp.
     CODEN: JKXXAF
DT
     Patent
LA.
     Japanese
FAN.CNT 1
     PATENT NO. KIND DATE APPLICATION NO. DATE
                 KIND DATE
                                         -----
PI JP 11323015 A2 19991126
PRAI JP 1998-70291 19980319
                                         JP 1999-73528 19990318
                          19980319
OS
     MARPAT 132:4047
AB
     The nonhalogen compns. having good fire resistance, film
     formability and film strength comprise phosphorus fireproofing
     agents (e.g., phenylene tetra-Ph phosphate) in microcapsules and
     thermoplastic resins (e.g., ethylene-vinyl acetate copolymer). The
     fire-resistant fabrics, useful for construction materials,
     tents, and canvas (no data), are manufd. by coated on .gtoreq.1 side of
     the fabrics (e.g., polyester fabric) with the compn.
L17 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2003 ACS
AN
     1999:505770 CAPLUS
DN
     131:131215
ΤI
     Ink-jet-printable image-transfer medium, process for transferring image,
    and cloth imaged by this process
IN
    Yuko, Sato; Masahiko, Higuma; Motokazu, Kobayashi; Yoshiyuki, Shino
PA
    Canon Kabushiki Kaisha, Japan
SO
    Eur. Pat. Appl., 32 pp.
    CODEN: EPXXDW
DT
    Patent
LA
    English
FAN.CNT 1
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PATENT NO.
                KIND DATE
                                  APPLICATION NO. DATE
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                                  -----
    EP 933226
                A2
PΤ
                      19990804
                                  EP 1999-101500 19990127
   EP 933226
                  A3
                      19991110
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
          IE, SI, LT, LV, FI, RO
    US 2002098326 A1 20020725
                                  US 1999-234410 19990121
   JP 11277897
                 A2 19991012
                                 JP 1999-18310 19990127
   JP 11314452
                 A2 19991116
                                  JP 1999-18303 19990127
                A 19980128
PRAI JP 1998-16220
   JP 1998-16221
                 Α
                     19980128
```

AB Disclosed is an ink-jet-printable image-transfer medium, comprising a base material, and a releasing layer and a transfer layer, both, provided on the base material, wherein the transfer layer comprises fine particles of a water-insol. thermoplastic resin, a water-insol. thermoplastic resin binder and a crosslinking agent coated with a thermoplastic resin. Optionally, the transfer film consists of a layer contg. the crosslinking agent and a binder not reactive with the crosslinking agent and a crosslinking agent-free layer contg. a binder reactive with the crosslinking agent. The transfer medium exhibits good storage stability, and the transferred images exhibits high optical d., clearness, and washfastness. A typical transfer medium was prepd. from a compn. contg. 100 parts AC Polyethy A-6 (ethylene resin, particle size 6 .mu.m), 40 parts Hytec E-8778 (acrylic acid-ethylene copolymer) binder (solids content 10 parts), microcapsules [contg. Epiclon 3050 (epoxy crosslinker) core and A-C6 (polyethylene) shell, particle size 10 .mu.m] 10, silica (particle size 3 .mu.m) 2, cationic resin (solids content 3 parts) 10, surfactant (solids content 1 part) 3, and water 10 parts.

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L17 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2003 ACS
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AN 1994:272627 CAPLUS

DN 120:272627

TI Transfer sheets imparting three-dimensional look

IN Kitagawa, Yosuke; Tagino, Nobuyuki

PA Matsui Shikiso Kagaku Kogyosho, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 05287686	A2	19931102	JP 1992-109254	19920401
PRAI	JP 1992-109254		19920401		

The title sheets which are applicable by heat and pressure (e.g. by iron or hot press) to a surface (e.g. fabric) for an attractive look, comprise a base layer (A), a release layer (B), a design layer (C), an embossed layer (D) with 3-D patterns, and an adhesive layer (E) wherein the C is obtained from soft film-forming thermoplastic polymer contg. heat-expandable particles and optionally coloring agents. A transfer sheet comprised a glassine paper (A), a silicone release layer (B), a Crisvon 3156 layer (C) applied by silk-printing using MIBK soln. contg. isophorone and pigments, a Superflex E-2000 (D) layer contg. microcapsules and other pigments, and a hot-melt adhesive layer (E). Affixing the transfer sheet by heat and pressure from the glassine paper side to a fabric gave a 3-D design with good appearance and washfastness.

## => d his

(FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)

```
183778 S TEXTILE OR FABRIC
L1
L2
         460121 S FIBERS OR FIBRES
L3
         985603 S FILM
L4
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L5
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
L6
              0 S 2.00 MICRONS TO 500 MICRONS
L7
             61 S 50 MICRONS
              9 S 75 MICRONS
L8
L9
             37 S 40 MICRONS
L10
              6 S 5.0 MICRONS
L11
         840130 S SUBSTRATE
L12
            189 S L1 AND L2 AND L4
L13
             48 S L12 AND L5
L14
              0 S L13 AND L10
L15
              0 S L4 AND L10
L16
              1 S L4 AND L7
L17
             10 S L1 AND L3 AND L4 AND L5
=> d scan 113 1-48
'1-48' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'
1.13
      48 ANSWERS
                  CAPLUS COPYRIGHT 2003 ACS
     ICM B32B027-18
IC
     ICS D06M011-00; D06M023-12; D06M015-564
CC
     38-3 (Plastics Fabrication and Uses)
     Section cross-reference(s): 40
ΤI
     Moisture-permeable, waterproof, and heat-insulating fabric and
     its resin laminate
ST
     moisture permeable waterproof heat insulating polyurethane laminate;
     skiwear polyamide fabric polyurethane film laminate; polyester
     fabric polyurethane film laminate garment; pentane microcapsule
     polyamide fabric polyurethane laminate; zinc antimonate IR
     absorbent polyurethane laminate
ΙT
     Optical materials
        (IR absorbers, polyurethane films contg.; moisture-permeable,
        waterproof, and heat-insulating fabric and resin laminate)
ΙT
     IR materials
        (absorbers, polyurethane films contg.; moisture-permeable, waterproof,
        and heat-insulating fabric and resin laminate)
IT
     Polyamide fibers, uses
     Polyester fibers, uses
     RL: PRP (Properties); TEM (Technical or engineered material use); USES
     (Uses)
        (fabrics; moisture-permeable, waterproof, and heat-insulating
        fabric and resin laminate)
IT
     Adhesives
        (hot-melt, for lamination; moisture-permeable, waterproof, and
        heat-insulating fabric and resin laminate)
IT
     Parting materials
     Thermal insulators
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
    Laminated plastics, properties
IT
     RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
IT
     Silica gel, uses
    RL: MOA (Modifier or additive use); USES (Uses)
        (moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
ΙT
    Microcapsules
        (pentane encapsulated by polyacrylonitrile, polyurethane films contq.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
```

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IT
      Polyurethanes, uses
      RL: PRP (Properties); TEM (Technical or engineered material use); USES
      (Uses)
         (polyether-, films; moisture-permeable, waterproof, and heat-insulating
         fabric and resin laminate)
 IT
      53125-59-0, Zinc antimonate
      RL: MOA (Modifier or additive use); TEM (Technical or engineered material
      use); USES (Uses)
         (IR absorbents, polyurethane films contg.; moisture-permeable,
         waterproof, and heat-insulating fabric and resin laminate)
 IT
      141444-27-1, Resamine NE
      RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
      reagent); USES (Uses)
         (crosslinking agents, polyurethane films contg.; moisture-permeable,
         waterproof, and heat-insulating fabric and resin laminate)
 IT
      37293-38-2, Coronate HL
      RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or
      reagent); USES (Uses)
         (crosslinking agents, polyurethane-based adhesives contg.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
     109-66-0, Pentane, uses
IT
     RL: TEM (Technical or engineered material use); USES (Uses)
         (encapsulated by polyacrylonitrile, polyurethane films contg.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
ΙŢ
     25014-41-9, Polyacrylonitrile
     RL: TEM (Technical or engineered material use); USES (Uses)
         (pentane encapsulated by, polyurethane films contg.;
        moisture-permeable, waterproof, and heat-insulating fabric
        and resin laminate)
The following are valid formats:
ABS ----- GI and AB
ALL ----- BIB, AB, IND, RE
APPS ----- AI, PRAI
BIB ----- AN, plus Bibliographic Data and PI table (default)
CAN ------ List of CA abstract numbers without answer numbers
CBIB ----- AN, plus Compressed Bibliographic Data
DALL ----- ALL, delimited (end of each field identified)
DMAX ----- MAX, delimited for post-processing
FAM ----- AN, PI and PRAI in table, plus Patent Family data
FBIB ----- AN, BIB, plus Patent FAM
IND ----- Indexing data
IPC ----- International Patent Classifications
MAX ----- ALL, plus Patent FAM, RE
PATS ----- PI, SO
SAM ----- CC, SX, TI, ST, IT
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD ----- BIB, IPC, and NCL
IABS ----- ABS, indented with text labels
IALL ----- ALL, indented with text labels
IBIB ----- BIB, indented with text labels
IMAX ----- MAX, indented with text labels
ISTD ----- STD, indented with text labels
OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels
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SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
HIT ----- Fields containing hit terms
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
             containing hit terms
HITRN ----- HIT RN and its text modification
HITSTR ----- HIT RN, its text modification, its CA index name, and
             its structure diagram
HITSEQ ----- HIT RN, its text modification, its CA index name, its
             structure diagram, plus NTE and SEQ fields
FHITSTR ---- First HIT RN, its text modification, its CA index name, and
             its structure diagram
FHITSEQ ---- First HIT RN, its text modification, its CA index name, its
             structure diagram, plus NTE and SEQ fields
KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrence of hit term and field in which it occurs
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To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

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(FILE 'HOME' ENTERED AT 14:50:21 ON 18 MAR 2003)

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FILE 'CAPLUS' ENTERED AT 14:51:19 ON 18 MAR 2003
Ll
         183778 S TEXTILE OR FABRIC
L2
         460121 S FIBERS OR FIBRES
L3
         985603 S FILM
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L4
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
L5
L6
              0 S 2.00 MICRONS TO 500 MICRONS
L7
             61 S 50 MICRONS
L8
              9 S 75 MICRONS
L9
             37 S 40 MICRONS
              6 S 5.0 MICRONS
L10
L11
         840130 S SUBSTRATE
            189 S L1 AND L2 AND L4
L12
             48 S L12 AND L5
L13
              0 S L13 AND L10
L14
L15
              0 S L4 AND L10
L16
              1 S L4 AND L7
L17
             10 S L1 AND L3 AND L4 AND L5
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## => d 113 1-48 abs

L13 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2003 ACS

AB The lightwt. substrate, showing HCHO release prevention, is manufd. by (a) sandwiching of a porous core between 2 webs impregnated with diallyl phthalate resin and/or an unsatd. polyester contg. expandable thermoplastic fine spheres and (b) hot press molding of the resulting laminate so that the resins penetrate into pores in the porous core. Thus, a sheet of glass paper (EPM 4025) laminated with glass chopped strand mats was impregnated with a mixt. of diallyl phthalate (Daiso Dap) 10, unsatd. polyester 90, microcapsules (F-46) 20, Bz202 3.5,

MePh 65, and iso-Pr alc. 35 parts and dried at 60-100.degree. to give an expandable sheet then a paper honeycomb structure was sandwiched between 2 of the sheets and pressed at 150.degree. for 60 s to give a substrate showing enough adhesion among the sheets and the honeycomb structure.

- L13 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The surface treatment process is based on dispersions of <1 .mu.m diam. microcapsules, dispersant, photoinitiator, and crosslinking agent; fibers or textiles are impregnated with the dispersion and exposed to UV light to effect linking of discrete microcapsules to functional group sites on the fiber surface. The dispersant is selected from ionic, nonionic, or amphoteric surfactants and wetting agents or their mixts.; the crosslinking agent is selected from vinyl and acrylic compds. or their mixts. The active agent in the microcapsules is selected from C16-22 aliph. hydrocarbon oils, poly(ethylene glycol) or their mixts. and conveys thermal insulation characteristics to textiles with a uniform distribution of microcapsules on their surface. Microcapsules with shell of bisphenol-A polycarbonate and eicosane as active agent were dispersed in aq. soln. of 2 g/L sodium dodecylsulfate and 1 g/L Triton-X 100 dispersants, dipropylene glycol diacrylate as linking agent covering the surface of the microcapsules, and benzophenone photoinitiator. The dispersion is applied onto a fabric in 4 stages by padding, water from the dispersion is removed in a drying stage, and the microcapsules are attached to the fabric by exposure to UV light under N for 2 min. The fabrics showed storage and maintenance of heat of about 3 kJ/m2 at about 37.degree..
- L13 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2003 ACS
- As ubstrate is hot pressed with a color changeable sheet, which comprises a hot-melt resin film m. 60.degree.-80.degree. and a layer thereon contg. a color changeable pigment and a binder resin. Thus, an Elphan UH (I) film was coated with a color nonchangeable white pigment layer, printed with a UV-curable color nonchangeable blue ink to form a blue image, coated with a urethane ink (colorless at >30.degree. and black at <30.degree.) contg. color changeable microencapsulated pigments to hide the blue image, coated with an acrylic polyol protective layer, and hot pressed on a T shirt on the I side. The T shirt showed a black color at <30.degree., and at >30.degree., the black disappeared and blue appeared.
- L13 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The invention relates to a method for acaricidal and microbicidal treatment of textile materials, a compn. of microcapsules of neem oil, specifically for the treatment above and a bioactive textile material thus obtained. In particular, the invention relates to industrial and com. treatment of fabrics and related products and more particularly to textile materials made from natural fibers such as cotton, or synthetic fibers, or mixed fibers such as polyester/cotton. aim of the invention is a method for acaricidal and microbicidal treatment of a textile material. Said aim is achieved, whereby microcapsules contg. neem oil are fixed on said textile material. The microcapsule are based on urea resin, and the Neem oil treatment compns. contain a binder such as polyurethanes or polysiloxanes to increase the heat resistance of the microcapsules and provides for good adhesion of the microcapsules to the textiles.
- L13 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The sheets comprise a backing sheet of a superfine fiber (.ltoreq.0.5 dtex) nonwoven fabric filled with an elastomer and an elastomer covering contg. .gtoreq.80% microcapsules filled with a phase-changeable substance with m.p. -10 to 80.degree. Prepg. a polyethylene-nylon 6 sea-island fiber, forming into a nonwoven,

impregnating with a DMF soln. of ethylene oxide-propylene oxide-polyhexamethylene carbonate diol-4,4'-MDI-ethylene glycol copolymer, removing polyethylene component using hot PhMe, buffing with a sandpaper, coating with a polyurethane adhesive, attaching a release paper coated with a compn. contg. Himuren X 3040, polyurethane-urea-encapsulated n-paraffin (temp. retention 25.degree.), colorant, MEK, PhMe, and water to the adhesive side, drying, heating 30 min at 50.degree., removing the release paper, gravure coating with a poly(amino acid)-polyuethane soln., and rubbing in 80 degree. water gave a grain-surface synthetic leather for sofa materials with good touch and softness.

- L13 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The heat shock-absorbing materials (A) comprise sheets contg. microcapsules contg. heat shock-absorbing substances and show heat shock absorption coeff. .gtoreq.1.2, or the heat-shock absorbing materials comprise A materials having the microcapsules having particle diam. 5-50 .mu.m, or the heat shock-absorbing materials comprise A materials contg. a polymer binder film, or the heat shock-absorbing materials comprise A materials having .gtoreq.1 side contg. a polyurethane layer and/or PTFE layer, or the heat shock-absorbing materials comprise A materials showing water vapor permeation rate 1000 g/m2-24 h as detd. by CaCl2 method and showing water resistance .gtoreq.500 mmH2O. The heat shock-absorbing fabrics are prepd. by laminating A materials on .gtoreq.1 side of the fabrics. The heat-shock absorbing fabrics are useful for insulated clothings and sportswear. release paper was coated with Himuren Y-210B (moisture-permeable polyurethane) 100, toluene 50, n-octadecane (I)-contg. microcapsule 50 parts and dried to give a film with I content .apprx.50 g/m2. The film was coated with a compn. contg. US 642 (moisture-permeable polyurethane) 100, toluene 50, Coronate HL (polyisocyanate) 10, and catalyst 1 part in a dotted form, pressed together with a nylon tricot for 5 s at 100 degree., and kept 48 h at 60.degree. to give a laminated fabric showing heat shock absorption coeff. 2.8 as detd. by increasing the temp. of the material from 25.degree. to 35.degree. and exhibiting heat shock coeff. 2.3 as detd. by decreasing the temp. of the material from 25.degree. to 15.degree..
- L13 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The multi-component fiber comprises a fiber body formed from many elongated members, .gtoreq.1 of the elongated members contg. a dispersed temp. regulating phase change material. Thus, a core sheath fiber contained (a) polyethylene core fiber contg. microcapsules of phase change material blended with fiber grade polypropylene and (b) a polypropylene or nylon 6 sheath. The multi-component fiber may be used in textiles, apparel, footwear, medical products, containers and packagings, buildings, appliances, and other products.
- L13 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The slip-resistant fabrics (A) comprise fabric base materials having one or two sides coated with binder polymers contg. microcapsules having particle diam. 5-200 .mu.m, or the slip-resistant fabrics comprise A fabrics having the binder polymers consisting of acrylic polymers or polyurethanes, or the slip-resistant fabrics comprise A fabrics having the thickness of the binder polymer coatings <50 .mu.m. A woven nylon taffeta was dyed with an acid dye in yellow shade, treated with aq. 5% Asahiguard AG 710 (water repellent), coated on one side with a liq. (B) contg. acrylic acid ester copolymer 100, expandable acrylonitrile polymer microcapsules 6, and Mitec NY 710A (crosslinking agent) 2 parts to coating wt. 30 g/m2, subsequently coated with B liq. to coating wt. 30 g/m2, and dried. The coated **fabric** was heated 1 min at 170.degree. to expand the microcapsules and treated with a soln. contg. Asahiguard AG 5690 (water repellent) to give a slip-resistant fabric with the coating layer contg. microcapsules with

diam. 10-120 .mu.m and showing soft handle and lightwt. and exhibiting frictional coeff. 1.5 initially and 1.2 after 10 washings.

- L13 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The fabrics have waterproof resin films contg.

  microcapsules (particle size 10-200 .mu.m) and IR absorbers.

  Thus, a nylon fabric was treated with Asahiguard AG 710 (water repellent) and coated with an acrylate resin compn. contg. tin antimonate and thermally expandable microcapsules (acrylonitrile polymers contg. pentane) to give a waterproof heat-retaining fabric.
- L13 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The thermochromic fabrics (A) have a thermochromic layer comprising binder polymers and thermochromic pigments dispersed in the binder and have the surface and back of the fabrics and the thermochromic layer treated with a water-repellent finish, or the thermochromic fabrics comprise A fabrics having the water-repellent finish comprising water-repelling fluoropolymers and showing surface tension 10-50~mN/m, or the thermochromic fabrics comprise A fabrics having water-repelling fluoropolymer content 2-50%. The thermochromic fabrics are useful for clothings or surface materials for dolls, swimsuits, artificial flower, and tablecloths. A polyester tricot was screen printed with a compn. contq. 25 parts microencapsulated pigment having blue hue at .ltoreq.15.degree., 50 parts acrylic polymer emulsion, and 4 parts ethyleneimine-type crosslinker and cured 5 min at 120.degree. The fabric was treated with an aq. liq. contg. 10% NK Guard NDN-7 (I; fluoropolymer water repellent, solids 20%) and 1% blocked isocyanate to give a fabric with I content 2% (on fabric) and surface tension 20 mN/m and showing blue color on immersing a swimsuit of the fabric in H2O at .ltoreq.15.degree. and exhibiting white color on immersing the swimsuit in H2O at .gtoreq.30.degree..
- L13 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title laminates, with lightwt. and useful for garments, skiwear, tents, etc. (no data), comprise a base fabric (e.g., of polyamide fibers, polyester fibers), on .gtoreq.1 surface laminated with a moisture-permeable, waterproof, and heat-insulating resin film (e.g., of polyether-polyurethanes) contg. microcapsules (e.g., pentane encapsulated by polyacrylonitrile) and/or an IR ray absorbing agent (e.g., Zn antimonate), and optionally a releasing paper.
- L13 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB A heat-storing dotted sheet is characterized in that dots are formed on the surface of base material in a sheet form by the use of a synthetic resin contg. heat-storing capsules comprising micro-capsules and, contained therein, a heat-storing material. The dotted sheet has heat-storing property in combination with another function.
- L13 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Insecticidal terpenes are treated with cellulose and emulsified to prep. insecticides. Thus, 30 parts terpenes contg. 58-65% .alpha.-pinene and 25-35% .beta.-pinene was treated with 10 parts cellulose, emulsified, and used to impregnate a cotton bathrobe.
- L13 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Title products contain 3-50% thermoplastic resin-coated NH4 polyphosphate (TA). Title agents are mixts. of 100 parts synthetic resin emulsions and 10-100 parts TA. A polyester cloth was spread with a mixt of 100:50 AA 80 and TA, rolled, and dried at 80.degree. to form a cloth with good self extinguishment ability initially and after soaking in boiling water for 5 min.

- L13 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The present invention provides a partially coated fiber strand comprising many glass fibers having a coating compn., the coating comprising >20% of many particles selected from inorg. particles, org. hollow particles, composite particles, and mixts. wherein the particles have a Mohs' hardness value which does not exceed the Mohs' hardness value of the glass fibers. Thus, a glass fiber coated with the above coating compn. was dried, twisted to form a yarn and wound onto bobbins exhibited minimal sizing shedding.
- L13 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The present invention provides a partially coated fabric comprising .gtoreq.l fiber strand comprising many glass fibers, the coating comprising >20% of many particles selected from inorg. particles, org. hollow particles, composite particles, and mixts. wherein the particles have a Mohs' hardness value which does not exceed the Mohs' hardness value of the glass fibers. Thus, a glass fiber coated with the above coating compn. was dried, twisted to form a yarn and wound onto bobbins exhibited minimal sizing shedding.
- L13 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2003 ACS
- A prosthetic heart valve resistant to tissue overgrowth following implantation comprises a sewing ring and a housing component enclosing a valve component, wherein a member selected from sewing ring, a housing component, and a valve component contains at least one biol. active material in an amt. sufficient to prevent the infiltration of fibrous tissue ("pannus") from the host into the structure of the prosthetic valve. Preventing or decreasing the overgrowth of the prosthetic valve by pannus reduces the complications assocd. with the implantation and use of prosthetic heart valves. The sewing ring comprises a polymeric material selected from plastics, rubbers, or fabrics. The fabric comprises a material selected from thermoplastic polyurethanes, nylons, polypropylene, polytetrafluoroethylene, polyesters, polyether-polyester block copolymers, polyamides, polyimides, polyolefins, synthetic hydrocarbon elastomers, and natural rubber. The biol. active material is selected from a group consisting of antithrombotics, antiinflammatories, corticosteroids, antimicrotubule agents, antisense oligonucleotides, antineoplastics, antioxidants, antiplatelets, etc. The artificial heart valve components are at least partially covered with a coating for release of biol. active material in the form of gels, foams, suspensions, microcapsules, solid polymeric support and fibrous structures.
- L13 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Carpets contain microencapsulated insecticides and carriers. Thus, microcapsules contained diethyltoluamide 25, di-Bu adipate 5, a nonionic surfactant 3, water 60, and a polyurethane shell 7 parts.
- L13 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Title decorative compn. for coating the **textile** (e.g., glass fiber)-finished surfaces of a building comprises (A) a water-resistant resin emulsion (acrylic resin Liveall Mighty), (B) inorg. binders (alkali silicates), (C) pulverized natural stones (granite), (D) decorative powder aggregates, (E) ultrafine hollow ceramic particles, and (F) pigments (titania).
- L13 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The heat-retentive fabrics comprise fabrics coated with hygroscopic polymer (A) particles exhibiting temp. increase .gtoreq.0.5.degree. on absorption of moisture or H2O by the particles, or the heat-retentive fabrics comprise fabrics having A particles adhered to the fabrics by binders or binders contg. amino resin particles or silica particles. The fabrics are useful for cold-protective clothings. A woven polyester taffeta was

treated with a soln. contg. Asahiguard AG 710 (water repellent), squeezed, dried, and heat-set at 170.degree.. The water-repellent fabric was coated on one side with a soln. contg. 40% (solids) hygroscopic polymer particle emulsion 10, 20% acrylonitrile-Bu acrylate-Et acrylate-2-hydroxyethyl methacrylate copolymer soln. 100, formaldehyde-urea copolymer 10, Resamine D-52 (crosslinking agent) 3, catalyst 1, toluene 10 parts and dried to give a heat-retentive fabric exhibiting temp. increase 0.6.degree. on heating the fabric in an oven for 1 h at 120.degree. and cooling the fabric in a desiccator at 20.degree.

- L13 ANSWER 21 OF 48 CAPLUS COPYRIGHT 2003 ACS

  AB The title decorative sheet comprises a thermally insulating polymer foam layer, a thermally insulating adhesive layer contg. hollow particles, and a decorative layer. The title component comprises the decorative sheet formed on a metal substrate. The decorative sheet and component have high heat-retaining ability and dew does not formed on
- L13 ANSWER 22 OF 48 CAPLUS COPYRIGHT 2003 ACS GI

$$(R^5) k \longrightarrow 0 \\ \downarrow P - (CH_2) n - CHCO_2 R^3 \\ \downarrow CH_2 CO_2 R^3$$

$$(R^6) m \longrightarrow I$$

- The title **fabrics** comprise perfume-contg. **microcapsules** and I [R3 = H, C1-4 alkyl, (R70)r; R5, R6 = H, C1-8 alkyl; R7 = ethylene, propylene or butylene group; r = 1-10; k, m = 0-4; n = 0-2], which are fixed by polyurethane binders. Thus, spraying an aq. dispersion comprising perfume-contg. **microcapsules**, I (R3 = CH2CH2OH; R5, R6 = H; n = 1) and polyurethane binder (MU 50) on a polyester **fabric** resulting in improved fire resistance.
- L13 ANSWER 23 OF 48 CAPLUS COPYRIGHT 2003 ACS AB A custom-formable shoe insert comprises a conformable substrate layer, where at least a portion of the substrate layer is impregnated with a storage-stable, settable resin that sets after exposure to an activator; and an outer layer that is impervious to the settable resin but at least a portion of which is pervious to the activator. Addn. of octadecane-contg. urea-formaldehyde copolymer microcapsules to the insert provides a cooling effect. Thus, a soft resin from a compn. comprising Isonate 2143L 20.60, benzoyl chloride 0.06, Bu benzyl phthalate 10.00, Pluronic F 38 4.00, and 2,6-di(tert-butyl)-4-methylphenol 0.33 part, and a compn. comprising Polyol LHT 42 62.07, Antifoam 1400 0.20, Reactint yellow X 15 0.25, and 4-[2-[1-methyl-2-(4-morpholinyl)ethoxy]ethyl]morpholine 1.00 part were mixed and kneaded into an open-cell polyether-polyurethane foam piece (.apprx.0.95 cm x 10.2 cm x 30.4 cm, d. 1.4-1.6 1b/ft3) to form an insert. The insert was water-activated at room temp. by squeezing water into the insert, towel-dried and placed in a shoe, a human foot placed in the show in <1.5 min, the insert removed after 3.5 min and dried. The temp. under a person's arch while wearing the insert was 30.8-31.1.degree., compared with 28.1-28.5 for an insert contg. 7.8 q microcapsules, and 27.9-28.5 with no insert.

- L13 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The sheets are obtained by coating a resin compn. contg. inorg.
  hollow particles on a reinforcement substrate. Kneading
  100 parts phenolic resin (BRL 240) with 10 parts acidic hardening catalyst
  (FRH 50), kneading with 20 parts obsidian hollow
  particles (diam. 0.1-0.5 mm), coating on an acrylic woven
  sheet-laminated silicone-treated release paper and drying provided a
  thermal insulating sheet.
- L13 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The nonwoven fabrics comprise fibers with denier per filament .ltoreq.0.5 and coated with photocatalyst semiconductors (A) with the nonwoven fabric and A in the sepd. state or coated with mixts. contg. polyurethanes (B) and A with A and B and/or the nonwoven fabric in the sepd. state. The nonwovens are useful for clothings, sheet materials, wall materials, automobile interior materials, and shoes. Poly(ethylene terephthalate) as islands and polystyrene (I) as the sea were together melt spun at 50:50 ratio, drawn, crimped, lubricated, dried, cut, made into a carded web, needlepunched to form a nonwoven sheet, treated with a soln. contg. partially sapond. poly(vinyl alc.) for 3 min at 90.degree., dried, treated with C2HCl3 to dissolve I, and dried. The nonwoven fabric was impregnated with a compn. contg. 52% polyether-polyurethane soln., 2% microcapsules contg. SiO2 and TiO2, and 46% DMF, immersed in a coagulating bath, washed in hot water, dried, sliced, buffed, and dyed with a disperse dye to give a gray suedelike leather substitute comprising fibers with denier per filament 0.04, polyurethane content 35%, and TiO2 content 1.6% and exhibiting NH3 odor absorption 100%, acetaldehyde odor absorption 88%, Me mercaptan odor absorption 85%, bacteria decrease value (passing value .gtoreq.2.2) 4.9 (0 washing) and 4.5 (10 washings) as detd. by a specified testing.
- L13 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The bioactive textile comprises polyamide fibers and silk protein, with microcapsules embedded in the knit which contain a skin moisturizing agent and can be used as elastic support material, stockings, hose, etc., in direct contact with skin. An elastic bandage was made of polyamide and an emulsion of silk powder in a polyurethane resin; the active agent, a mixt. of vegetable oil-derived glycerol stearate was encapsulated in polymer microcapsules which were attached to the textile by a siloxane binder. The bandage was tested in 10 subjects, by applying to one leg while a conventional bandage was used in the other for a period five days, washing the bandage every night and monitoring the level of hydration of the skin.
- L13 ANSWER 27 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The nonhalogen compns. having good fire resistance, film formability and film strength comprise phosphorus fireproofing agents (e.g., phenylene tetra-Ph phosphate) in microcapsules and thermoplastic resins (e.g., ethylene-vinyl acetate copolymer). The fire-resistant fabrics, useful for construction materials, tents, and canvas (no data), are manufd. by coated on .gtoreq.1 side of the fabrics (e.g., polyester fabric) with the compn.
- L13 ANSWER 28 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The fabrics have coatings contg. hollow

  particles (A) with diam. .ltoreq.1.0 .mu.m or A particles and IR
  absorbers. The fabrics are useful for insulated clothings and
  curtains (no data). A woven polyester taffeta was dyed, heat-set 30 s at
  160.degree., coated on one side with an aq. compn. contg. 6.0% Impranil
  DLN (polyurethane, solids 40%) and 80.0% aq. dispersion (solids 40%)
  contg. hollow acrylic compd.-styrene copolymer particles to coating wt. 7
  g/m2 and dried to give a coated fabric with heat retention amt.
  19.0% and IR radiation temp. 32.0.degree..

- L13 ANSWER 29 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Substrates are coated with binders (at least polyurethanes) contg. pigments having low refractive index to form porous layers, which have hiding power in a dry state and become transparent or semitransparent on absorption of liqs. Thus, a nylon taffeta was printed with an ink contg. Epocolor FP 10 and a color-changing layer contg. Nipsil E 200A and Hydran AP 10.
- L13 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Substrates are coated with binders contg. pigments having low refractive index to form porous layers, which have hiding power in a dry state and become transparent or semitransparent on absorption of liqs. Thus, a nylon taffeta was printed with an ink contg. Epocolor FP 10 and a color-changing layer contg. Nipsil E 200A and Hydran AP 10.
- L13 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2003 ACS
- Title microcapsulated agents comprise antistatic agent cores and TiO2-contg. polymeric shells. A PET fabric was treated with a compn. contg. a polymer binder and microcapsules (contg. Na dilauryl phosphate- and Na2 monolauryl phosphate-mixed agent with 3-30% TiO2-contg. polymer shell) to form a fabric with 1.5-g agent/100-g fabric and showing good elec. static prevention even after detergent washing, abrading, and exposing under sun light over 6 yr.
- L13 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The process comprises (a) mixing hinokitiol microcapsules or hinokitiol-adsorbed ceramic fine particles with silk proteins obtained by hydrolysis of cellulose-reactive N-methylolurea resins, urethane resins, or silk, (b) soaking cellulosic fibers to the resulting dispersions, (c) squeezing to dehydration ratio 60-100%, and (d) drying and heating. Thus, a microcapsule dispersion was obtained from hinokitiol 20%-emulsion 20, a glyoxal resin 50, and NH4Cl 5 g and H2O 1 L. A cotton fabric was soaked into the liq., squeezed, dried at 80-100.degree., and set at 150-160.degree. to give a product.
- L13 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title fabrics or substrates (e.g., leather) are prepd. by coating fabrics or substrates with mixts. (A) contg. polymer binders with glass transition temp. from -45.degree. to 45.degree., 30-500 parts microspheres contg. a phase change material per 100 parts polymer, 0.001% (on microsphere wt.) surfactants, 0.001-6% dispersants, 25-80% (on A) H2O, and 0-1% (on A) antifoaming agents. A transfer paper was coated with an aq. compn. contg. 17.80% microcapsules contg. octadecane and 38.50% natural rubber latex and pressed together with an extensible fabric to give a coated fabric with good water vapor transmission properties.
- L13 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The fiber structures to which are adhered microcapsules contg. physiol. active substances are manufd. by immersing fiber structures in treating baths composed of the microcapsules and polymer solns., heating, and anchoring. Thus, gelatin microcapsules with av. particle diam. 3 .mu.m contg. a 20% soln. of .gamma.-oryzanol in olive oil, prepd. by interfacial polymn., were mixed with SM 8702 (silicone) at 1:1 ratio to give a 10%-solids bath in which PET fabric was immersed, padded, and heated 2 min each at 60.degree. and 110.degree. to give a test piece with heat-retaining property, bactericidal properties vs. Staphylococcus aureus IFO 12732, UV-ray shielding properties, and washability.
- L13 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The title cleaning roll consists of inorg. microcapsules, contg. silicone tackifier and rupturing upon pressure application, on a silicone

- oil-impregnated nonwoven <code>fabric</code> web. The <code>microcapsules</code> may be ruptured at 0.5-2.0 kg/m2. The cleaning roll showed easy removal of residual toner and paper dust from the fixing roll without scratching the fixing roll surface.
- L13 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2003 ACS

  AB A coating adapted to be applied to a substrate such as a fabric for enhancing the thermal storage properties consist essentially of a liq. polymeric binder and a plurality of leak-resistant microcapsules dispersed in the binder, the microcapsules contg. a temp.

dispersed in the binder, the microcapsules contg. a temp. stabilizing means, and when the liq. polymer contg. microcapsules bonds with the substrate, upon application to the substrate, exhibits enhanced thermal stability when the coating thus applied is cured and is subjected to heat or cold. The temp. stabilizing means may comprise a phase change material selected from paraffinic hydrocarbons or from plastic crystals.

- L13 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title fabrics are prepd. by coating synthetic fabrics with mixts. comprising porous ceramics contg. fragrances and microcapsules contg. fragrances and cellulose powders. The fabrics are useful for diapers, sanitary napkins, medical underpads, hospital materials, bedding covers, curtains, wallpapers, and interior materials (no data). A nonwoven fabric of spun fibers from polyethylene as the sheath and a polyester as the core was prepd., embossed, spray coated with a liq. contg. 1:0.05 (wt. ratio) mixt. of lemon fragrance-contg. porous ceramic and cellulose powder (Serisshu KY-100S) and dried to give a fabric with lasting fragrance and water absorption 100% by a specified test.
- ANSWER 38 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title fabrics are prepd. by coating fabrics with liqs. contg. thermoplastic polymers and expandable microcapsules to form a porous cellular layer and then forming a porous polymer or nonporous moisture-permeable layer on the surface to solids content 1-10 g/m2. A nylon taffeta was coated with a liq. contg. Himuren X 3040 (I; polyurethane), Resamine X (II; crosslinking agent), and Microsphere F-50D, dried, coated with a liq. contg. I and II, and heated at 130.degree. to foam the first layer and give an insulative water-resistant fabric with good moisture permeability.
- ANSWER 39 OF 48 CAPLUS COPYRIGHT 2003 ACS

  Microencapsulated alliin, allicin, and their derivs. are adhered to fibers by polymeric binders. The microcapsules are gradually broken down and show their physiol. activities, such as microbicidal activity, accelerating blood circulation, etc. Volunteers with recurrent history of athlete's foot wore socks contg. microencapsulated thiamin propyl disulfide (which was bound to the textile by using epoxy-modified di-Me siloxane) for .apprx.2 mo to show no development of athlete's foot.
- ANSWER 40 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title neckties or ribbons are prepd. by coating neckties or ribbons with 2-1:1-5 (wt. ratio) mixts. of microcapsules and silicones to coating content 0.3-7.0%. Thus, a silk necktie was padded with a liq. contg. 10 g/L urea resin microcapsules contg. fragrance and 30 g/L epoxy-modified di-Me siloxane, dried, and heat treated 1 min at 140.degree. to give a washfast fragrant necktie with coating content 1.8%.
- L13 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2003 ACS

  AB Leather substitutes with lasting fragrance are prepd. by coating base fabrics with compns. contg. polymers and fragrance-contg. microcapsules to form a porous surface layer. Thus, a tricot of

bicomponent **fibers** consisting of nylon 6 and PET was napped, treated with benzyl alc. to sep. the components, coated with a compn. contg. polyurethane (Crisvon 8166, solids 30%) 100, DMF 20, and microcapsule 1 part, treated with a coagulating soln., washed, dried, and buffed to give a fragrant leather substitute with good washfastness of fragrance.

- L13 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The title curtains with lasting fragrance are prepd. by coating curtains with 2:(1-10) mixts. of microcapsules contg. fragrances and silicone binders to finish content 0.3-7.0%. Thus, a dyed waterproofed polyester drapery was padded with a liq. contg. 1:1 mixt. of jasmine-contg. microcapsules and epoxy-modified di-Me polysiloxane (I), dried, and heated 1 min at 120-130.degree. to give a curtain with finish content 1.4% and washfastness (JIS L-0217) 10 cycles and fragrance good, vs. 4 cycles and poor, resp., using a printing thickener instead of I.
- L13 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2003 ACS
- Title fibrous structure contains  ${\tt microcapsules}$  encapsulating a perfume adhered thereto by a resinous binder, a wt. ratio of the microcapsules and resinous binder being 2-1:1-5, and an add-on amt. in the aggregate of the microcapsules and resinous binder being 0.3-7.0% based on wt. of a portion to which the microcapsules and resinous binder are adhered, of the fibrous structure. Ten kinds of dyed woven fabrics, knits, and yarns, were subjected to water repellent-softening process, the 10 samples were treated well at 10 g/L of an aq. dispersion of urea resin microcapsules contg. jasmine flower perfume (av. particle diam. 8 .mu.m, wall thickness 1 .mu.m) mixed with 10 g/L epoxy-modified di-Me siloxane resin, dewatered, dried and heated at 120-130.degree. for 1 min. The samples were forwarded to drying, finishing, and setting steps. Apparel was manufd. from these samples and dry cleaned. These samples showed good resistance to dry cleaning, optimal fragrance emission, and optimal bond.
- ANSWER 44 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title fabrics are prepd. by coating nonwoven fabrics of elastic fibers with compns. comprising 2-1:1-5 (wt. ratio) mixts. of microcapsules contg. jasmine and silicone resin binders to mixt. content 0.3-7%. A needlepunched spandex nonwoven fabric was coated with a liq. contg. 10 g/L microcapsules contg. jasmine and 20 g/L epoxy-modified di-Me polysiloxane to 100% pickup and heat treated 1 min at 120-130.degree. to give a fragrant fabric with microcapsule content 0.45% and good fragrance retention after 11 washings.
- L13 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2003 ACS The title fabrics are prepd. by coating fabrics with AB compns. contg. polymer coating materials and porous microcapsules contg. functional agents and then heat treating the fabrics. Thus, a nylon taffeta was dyed, impregnated with a liq. contg. 10 g/LAsahiguard AG 710 (fluorocarbon waterproofing agent), dried, and heat treated 1 min at 170.degree.. The fabric was then coated with a compn. contg. urethane polymer 10, toluene 79.8, iso-PrOH 15, DMF 27, trimethylolpropane-hexamethylene diisocyanate adduct 0.4, and SiO2 microcapsules contg. 40% fluorocarbon water-repellent emulsion 3 parts to coating thickness 150 .mu.. The coated fabric was dried and heat treated 1 min at 170.degree. to give a water-resistant fabric with water vapor permeation rate 4800  $g/m^2-24$  h and water resistance (JIS L-1079) 2000 mm H2O, vs. 1700 and 2000, resp., using no microcapsules.

- Waterproofing and antistatic finishes for synthetic fabrics giving good uniformity of application contain microencapsulated silicone, acrylic, or urethane prepolymers and solns. or dispersions of water absorbents. Thus, 30 g 0.6:1:2 polyoxypropylene triol-polypropylene glycol-TDI prepolymer (mol. wt. 10,000, NCO content 1.2%) in 70 g CH3CCl3 is stirred with 200 ml 10% water-absorbent soln. at 8000 rpm and left 24 hr to give a dispersion of 10-30 .mu. microcapsules with shell-core wt. ratio 1:800. The dispersion is dild. with 1400 ml H2O, applied to nylon tricot fabric, pressed at 1.2 kg/cm2 to rupture the capsules, dried 5 min at 100.degree., and cured 3 min at 150.degree. to give a creaseproof fabric with good water absorption.
- ANSWER 47 OF 48 CAPLUS COPYRIGHT 2003 ACS

  An org. dye insol. or slightly sol. in chlorinated hydrocarbon at room temp. is ground in the presence of a liq. vehicle or a melted waxy material m. 35-180.deg. and microencapsulated with the waxy material. The microcapsules are used to solvent-dye polyester textiles

  . Thus, a mixt. of red dye (I) [34346-69-5] 10, silicone oil 500, and anionic surfactant 0.5 part was milled at 130.deg., mixed with 10 parts low-mol. wt. polyethylene, and cooled to 40.deg. with gradually slowing agitation to give microcapsules. A Tetoron textile

  (100 parts) was dyed 60 min in a bath of 5 parts capsule in 1000 parts CC12:CC12 at 120.deg. in level, bright red shades.
- ANSWER 48 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The roller has a butadiene-rubber surface filled with fibers and crushed hollow ceramic particles, e.g. a copolymer 100 consisting of 55 parts butadiene and 45 parts acrylonitrile, fragile hollow particles 120, phthalate-resin staple fibers (1.5-12 mm. long) 25, ZnO 5, diphenylguanidine 0.25, clay 50, dibenzothiazolyl disulfide 1, S 2, and a softener (tritolyl phosphate) 50 parts by wt. The hollow bodies are obtained by passing milled and sieved clay or clay slate through a vertical oven. The particles pass through a gas-air flame at approx. 1500.degree., melt, and are recovered at the bottom of the kiln. The particles are hollow and mostly spherules of 0.25-5 mm. diam. When the roller is readily vulcanized, it is turned on a lathe. This causes the spherules in the outer layer to be crushed and to fall out, leaving a porous surface.

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -37.76	SESSION -37.76

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AN
     2003:40216 CAPLUS
DN
     138:91356
ΤI
     Process and agent for surface finishing of natural and synthetic
     fibers and textiles for thermal insulation
     Mavon, Christophe Jean-Francois; Huilier, Herve Richard Roger; Chambaudet,
IN
     Alain Andre Antoine
     Inter Unec Interaction Universite Economie, Fr.
PA
SO
     Eur. Pat. Appl., 8 pp.
     CODEN: EPXXDW
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L6
     ANSWER 3 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
     2003:36305 CAPLUS
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     138:91337
    Hot-press thermally color changeable sheets and thermally color changeable
TI
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ΙN
    Matsunami, Nobuaki
PA
     Pilot Ink Co., Ltd., Japan
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     Jpn. Kokai Tokkyo Koho, 7 pp.
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    2003:23073 CAPLUS
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    138:91351
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TI
    Method for acaricidal and microbicidal treatment of textile
    materials
IN
    Chetboun, Nathalie
PA
    Hagege, Edward, Fr.
    PCT Int. Appl., 18 pp.
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    CODEN: PIXXD2
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ANSWER 2 OF 48 CAPLUS COPYRIGHT 2003 ACS

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     ANSWER 5 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     2002:654629 CAPLUS
 DN
     137:186720
     Leather like sheets containing phase-changeable substance for easing
     temperature change
IN
     Makiyama, Norio; Goto, Yukio; Kimura, Yoshio
 PA
     Kuraray Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 13 pp.
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     Japanese
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     ANSWER 6 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
     2002:539284 CAPLUS
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     Heat shock-absorbing materials comprising sheets containing
TI
     microcapsules containing heat shock-absorbing substances and heat
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     Shimano, Yasuharu; Yamaguchi, Munehide; Mukai, Shoji; Sano, Masahiro;
IN
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     Komatsu Seiren Co., Japan; Idemitsu Technofine Co., Ltd.
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L6
     ANSWER 7 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
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TI
     Melt-spun bi- or multi-component fibers having reversible
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     Magill, Monte C.; Hartmann, Mark H.
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PΑ
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     PCT Int. Appl., 34 pp.
     CODEN: PIXXD2
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    WO 2002024992
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            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
            UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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AU 2001092951 A5 20020402 AU 2001-92951 20010921 PRAI US 2000-234410P P 20000921 W WO 2001-US29648 20010921 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 3 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 8 OF 48 CAPLUS COPYRIGHT 2003 ACS L6 AN 2002:47706 CAPLUS DN 136:87183 TISlip-resistant fabrics with lightweight and soft handle comprising fabrics coated with polymer binders containing microcapsules with diameter 5-200 .mu.m Zenda, Tatsuya; Koizumi, Makoto; Tajima, Shoichi; Okajima, Kazuysohi; IN Hara, Hiroshi KS Dyeing & Printing Co., Japan; Komatsu Seiren Co. PA SO Jpn. Kokai Tokkyo Koho, 4 pp. CODEN: JKXXAF DTPatent LΑ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----------JP 2002013080 A2 20020118 JP 2000-197880 20000627 PRAI JP 2000-197880 20000627 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2003 ACS 2002:36515 CAPLUS AN DN 136:71226 Waterproof heat-retaining fabrics TIIN Zenda, Tatsuya; Koizumi, Makoto; Tajima, Shoichi; Okajima, Kazuyoshi; Shimano, Yasunao; Yamaguchi, Munehide KS Dyeing & Printing Co., Japan; Komatsu Seiren Co. PA SO Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF DT Patent LA Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE --------------JP 2002011833 A2 20020115
JP 2000-197879 20000627 JP 2000-197879 20000627 PRAI JP 2000-197879 20000627 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2003 ACS L6 AN 2002:26122 CAPLUS DN 136:71214 Thermochromic fabrics showing color change in cold or hot water TI comprising fabrics having a thermochromic layer of binder polymers containing thermochromic pigments dispersed in the binder and having the surface and back of the fabrics treated with water repellents Kato, Hisayoshi IN PA Pilot Ink Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF DT Patent LΑ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ----------PΙ JP 2002004181 A2 20020109 JP 2000-181386 20000616 PRAI JP 2000-181386 20000616

L6 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2003 ACS AN 2002:10364 CAPLUS

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DN
       136:54995
      Moisture-permeable, waterproof, and heat-insulating fabric and
  TI
      its resin laminate
      Zenda, Tatsuya; Koizumi, Makoto; Tajima, Syouiti; Okajima, Kazuyoshi;
  IN
      Shimano, Yasunao; Yamaguchi, Munehide
      KS Dyeing & Printing Co., Ltd., Japan; Komatsu Seiren Co., Ltd.
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  SO
      PCT Int. Appl., 24 pp.
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      2001:885946 CAPLUS
 AN
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      136:20944
     Heat-storing dotted sheet, heat-storing cotton wadding, heat-storing fiber
     structure, heat-storing laminate and heat-storing cloth product
 IN
      Sano, Masahiro
 PA
     Idemitsu Technofine Co., Ltd., Japan
 SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
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     ANSWER 13 OF 48 CAPLUS COPYRIGHT 2003 ACS
     2001:881685 CAPLUS
AN
DN
     136:38807
     Production methods for insect-repellent cloths
TI
     Saito, Yoshihiro; Imaeda, Hiroaki; Yamashita, Kiyoharu; Miyazaki,
IN
     Katsushige
PA
     Sagami Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 5 pp.
SO
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    JP 2001336068
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    ANSWER 14 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
    2001:704996 CAPLUS
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    135:258522
ΤI
    Fireproof fiber products and flameproofing agents therefor
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IN
     Narita, Noriaki
PA
     Chisso Corp., Japan
SO
     Jpn. Kokai Tokkyo Koho, 12 pp.
     CODEN: JKXXAF
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AN
     2001:693421 CAPLUS
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     135:258624
TΙ
     Impregnated glass fiber strands and products including the same
     Lawton, Ernest L.; Velpari, Vedagiri; Rice, William B.; Robertson, Walter
     J.; Novich, Bruce E.; Wu, Xiang; Lammon-Hilinski, Kami
     PPG Industries Ohio, Inc., USA
PΑ
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     PCT Int. Appl., 162 pp.
     CODEN: PIXXD2
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      Impregnated glass fiber strands and products including the same
      Lawton, Ernest L.; Velpari, Vedagiri; Rice, William B.; Robertson, Walter
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      J.; Novich, Bruce E.; Wu, Xiang; Lammon-Hilinski, Kami
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      PPG Industries Ohio, Inc., USA
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      PCT Int. Appl., 162 pp.
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              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
              LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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RE.CNT 17
              THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
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AN
        2001:564884 CAPLUS
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        135:142301
        Bioactive coatings to prevent tissue overgrowth on artificial heart valves
  TI
        made of polymeric materials
        Helmus, Michael N.; Cunanan, Crystal; Tremble, Patrice; Kafesjian, Ralph
  ΙN
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        Edwards Lifesciences Corporation, USA
        PCT Int. Appl., 38 pp.
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       WO 2001054745 A2 20010802
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       WO 2001-US2621
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L6
      ANSWER 18 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
       2001:563819 CAPLUS
DN
      135:138662
ΤI
      Insecticidal carpet cloths and manufacturing methods therefor
      Seto, Hotarou; Motonaka, Shuichi
IN
PΑ
      Suminoe Textile Co., Ltd., Japan
SO
      Jpn. Kokai Tokkyo Koho, 13 pp.
      CODEN: JKXXAF
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      JP 2001207378 A2 20010803
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PRAI JP 2000-15872
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      ANSWER 19 OF 48 CAPLUS COPYRIGHT 2003 ACS
ΑN
      2001:551934 CAPLUS
DN
      135:138787
TΙ
      Decorative coating composition for textile building finish
IN
      Minagawa, Mitsuo; Minagawa, Osamu
PA
      Libor K. K., Japan
SO
      Jpn. Kokai Tokkyo Koho, 4 pp.
      CODEN: JKXXAF
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     JP 2001207128
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ANSWER 17 OF 48 CAPLUS COPYRIGHT 2003 ACS

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AN
      2001:174382 CAPLUS
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 TT
      Heat-retentive fabrics for sportswear comprising fabrics
      coated with hygroscopic polymer particles showing temperature increase on
      absorption of moisture or water and uses of the fabrics
      therefrom
 IN
      Shimano, Yasuhisa; Yamaguchi, Munehide
      Komatsu Seiren Co., Japan
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      Jpn. Kokai Tokkyo Koho, 10 pp.
      CODEN: JKXXAF
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     JP 2001064876
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                                         JP 1999-349516 19991208
 PRAI JP 1999-180931 A 19990625
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     ANSWER 21 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     2000:631692 CAPLUS
 DN
     133:226759
     Thermally insulating polymer foam decorative sheet and component using it
 TI
     for interior and exterior decoration
     Kamiyama, Hironori
 IN
     Dainippon Printing Co., Ltd., Japan
 PA
 SO
     Jpn. Kokai Tokkyo Koho, 11 pp.
     CODEN: JKXXAF
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     JP 2000246824 A2 20000912
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     ANSWER 22 OF 48 CAPLUS COPYRIGHT 2003 ACS
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     2000:428156 CAPLUS
AN
DN
     133:75291
TI
     Fragrant flame retardant polyester fabrics
IN
     Tachioka, Yasunori; Suzuki, Motoyoshi
PΑ
     Teijin Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
     CODEN: JKXXAF
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     JP 2000178873
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                                        JP 1998-355980 19981215
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    ANSWER 23 OF 48 CAPLUS COPYRIGHT 2003 ACS
L6
AN
     2000:314487 CAPLUS
DN
     132:322809
    Custom-formable shoe insert
TI
    Ersfeld, Dean A.; Anderson, Richard E.; Ruegsegger, Michael L.; McGurran,
ΙN
    Kelly T.; Mallo, Richard A.
PA
    3M Innovative Properties Company, USA
SO
    PCT Int. Appl., 30 pp.
    CODEN: PIXXD2
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ANSWER 20 OF 48 CAPLUS COPYRIGHT 2003 ACS

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     WO 1999-US25436 W 19991029
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              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
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     ANSWER 24 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     2000:302400 CAPLUS
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     132:309518
 TI
     Thermal insulating sheets and their manufacture
     Mizuguchi, Toyokazu; Kishi, Hajime; Terashita, Takeshi
 IN
     Toray Industries, Inc., Japan
SO
     Jpn. Kokai Tokkyo Koho, 10 pp.
     CODEN: JKXXAF
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PRAI JP 1998-301119 1998-1000
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L6
     ANSWER 25 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
     2000:216249 CAPLUS
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     132:238167
     Polyfunctional nonwoven fabrics of ultrafine synthetic
ΤI
     fibers coated with encapsulated photocatalyst semiconductors with
     improved odor absorption and antibacterial properties
IN
     Honda, Hidenobu; Ito, Yoshihiko; Saito, Koichi
     Toray Industries, Inc., Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 8 pp.
    CODEN: JKXXAF
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PRAI JP 1998-275033
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L6
    ANSWER 26 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
    2000:167482 CAPLUS
DN
    132:185471
    Bioactive textile comprising silk protein fibers and
TI
    microencapsulated active agents
PΑ
    Dim S.A., Fr.
    Fr. Demande, 7 pp.
SO
    CODEN: FRXXBL
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                  KIND DATE
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      FR 2780073 A1 19991224
FR 2780073 B1 20000901
                                        FR 1998-7763 19980619
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                           19980619
      ANSWER 27 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
      1999:751578 CAPLUS
 DN
      132:4047
      Fire-resistant thermoplastic compositions containing phosphorus compounds
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      for fire-resistant fabrics
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      Takeda, Masanobu; Seki, Masao
      Toray Industries, Inc., Japan
 PA
      Jpn. Kokai Tokkyo Koho, 10 pp.
 SO
      CODEN: JKXXAF
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      JP 11323015
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 PRAI JP 1998-70291
                          19980319
     MARPAT 132:4047
 _{L6}
     ANSWER 28 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1999:498527 CAPLUS
 DN
     131:158806
 TI
     Fabrics with heat retaining properties and compositions
     containing hollow particles for imparting heat
     retaining properties to the fabrics
 IN
     Shimano, Yasutaka; Yamaguchi, Munehide
     Komatsu Seiren Co., Japan
 SO
     Jpn. Kokai Tokkyo Koho, 6 pp.
     CODEN: JKXXAF
 DT
     Patent
     Japanese
T.A
FAN.CNT 1
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     JP 11217770
PT
                     A2 19990810
                                        JP 1998-11848
                                                        19980123
     JP 3305249
                     B2 20020722
JP 2002327376 A2 20021115
PRAI JP 1998-11848 A3 19980123
                                        JP 2002-56312
                                                        19980123
     ANSWER 29 OF 48 CAPLUS COPYRIGHT 2003 ACS
L6
AN
     1999:462947 CAPLUS
DN
     131:117445
TI
     Color-changing laminates
     Nakajima, Akio; Ito, Masahiro; Ono, Yoshiaki
IN
PA
     Pilot Ink Co., Ltd., Japan
SO
     Jpn. Kokai Tokkyo Koho, 11 pp.
     CODEN: JKXXAF
DT
     Patent
LΑ
    Japanese
FAN.CNT 1
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                                      APPLICATION NO. DATE
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PΙ
    JP 11198272
                   A2 19990727
                                       JP 1998-14953 19980109
PRAI JP 1998-14953
                        19980109
L6
    ANSWER 30 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
    1999:462946 CAPLUS
DN
    131:117444
ΤI
    Color-changing laminates
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ΤN

Nakajima, Akio; Ito, Masahiro; Ono, Yoshiaki

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Pilot Ink Co., Ltd., Japan
      Jpn. Kokai Tokkyo Koho, 11 pp.
      CODEN: JKXXAF
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      Japanese
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      JP 11198271 A2 19990727
                                         JP 1998-14952 19980109
 PRAI JP 1998-14952
                          19980109
     ANSWER 31 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1998:665894 CAPLUS
     129:317050
 DN
 ΤI
     Antistatic agents for automobile interiors
 IN
     Shibukawa, Toshiya
 PA
     Nissan Motor Co., Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 4 pp.
     CODEN: JKXXAF
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     Patent
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     Japanese
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     JP 10273649
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                                        JP 1997-78722 19970331
PRAI JP 1997-78722
                          19970331
     ANSWER 32 OF 48 CAPLUS COPYRIGHT 2003 ACS
     1997:233683 CAPLUS
     126:213318
ΤI
     Process of adhering himokitiol to cellulosic fibers
IN
     Oochi, Junji
PA
     Oochi Junji, Japan
     Jpn. Kokai Tokkyo Koho, 5 pp.
SO
     CODEN: JKXXAF
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     Patent
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FAN.CNT 1
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     JP 09031858 A2 19970204
                                        JP 1995-177115
                                                        19950713
PRAI JP 1995-177115
                         19950713
L6
    ANSWER 33 OF 48 CAPLUS COPYRIGHT 2003 ACS
     1996:135756 CAPLUS
ΑN
DN
    124:178811
    Energy-absorbing coated fabrics or substrates with heat
    retention properties and manufacture thereof
IN
    Zuckerman, Joseph L.; Perry, Bernard T.; Pushaw, Robert J.; Wyner, Daniel
PA
    Gateway Technologies, Inc., USA; R.H. Wyner Associates, Inc.
SO
    PCT Int. Appl., 37 pp.
    CODEN: PIXXD2
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FAN.CNT 1
    PATENT NO.
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    WO 9534609 A1 19951221
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            TT, UA, UZ, VN
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SN, TD, TG
      AU 9529437 A1
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      JP 10502137 T2 19980224
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      US 6207738
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                                       US 1997-850944
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      US 6514362
                    B1 20030204
                                       US 2000-697699
                                                       20001025
      US 2001000517
                    A1 20010426
                                       US 2000-735380
                                                       20001211
      US 6503976
                    B2 20030107
      US 2002193028
                    Al 20021219
                                       US 2001-847499
                                                       20010502
 PRAI US 1994-259964 A 19940614
     US 1995-477824
                   A 19950607
     WO 1995-US7467 W
                         19950613
     US 1997-850944 A3 19970505
     US 2000-697699 A3 20001025
 L6
     ANSWER 34 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1995:339589 CAPLUS
 DN
     122:293353
     Modified fiber materials and manufacture thereof
 ТT
     Takeda, Keiji; Kawai, Fumiko; Amano, Jiro
 IN
     Toray Industries, Japan
 PΑ
 SO
     Jpn. Kokai Tokkyo Koho, 7 pp.
     CODEN: JKXXAF
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     JP 06299466
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                         19941025
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 PRAI JP 1993-84727
                         19930412
L6
     ANSWER 35 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
     1995:257764 CAPLUS
DN
     122:20440
     Cleaning roll for fixing roll in electrophotographic copier
ΤI
IN
     Maeda, Kenji
     Kanai Hiroyuki, Japan
PA
SO
     Jpn. Kokai Tokkyo Koho, 4 pp.
     CODEN: JKXXAF
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PΙ
    JP 06149117
                   A2 19940527
                                      JP 1992-296228 19921106
PRAI JP 1992-296228
                        19921106
L6
    ANSWER 36 OF 48 CAPLUS COPYRIGHT 2003 ACS
    1994:301055 CAPLUS
AN
    120:301055
DN
    Fabric with reversible enhanced thermal properties
ΤI
IN
    Bryant, Yvonne G.; Colvin, David P.
PA
    Triangle Research and Development Corp., USA
SO
    PCT Int. Appl., 19 pp.
    CODEN: PIXXD2
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FAN.CNT 1
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    WO 9324241 A1 19931209
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       W: BR, CA, JP, KR, US
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EP 611330 A1
EP 611330 B1
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         R: DE, FR, GB, IT
  PRAI US 1992-891236
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      WO 1993-US5119
                           19930528
  1.6
      ANSWER 37 OF 48 CAPLUS COPYRIGHT 2003 ACS
  AN
      1993:652076 CAPLUS
  DN
     119:252076
      Hygroscopic fragrant synthetic fabrics
  ጥፐ
  IN
      Tanaka, Koji; Ezaki, Koji
  PA
      Unitika Ltd, Japan
      Jpn. Kokai Tokkyo Koho, 8 pp.
 SO
      CODEN: JKXXAF
 DT
      Patent
 LA
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      JP 05163676 A2 19930629
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                                        JP 1991-330959 19911216
 PRAI JP 1991-330959
                     19911216
 L6
     ANSWER 38 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1993:474518 CAPLUS
 DN
     119:74518
 TI
     Water-resistant moisture-permeable insulative fabrics
     Nakano, Sachiko; Tsukamoto, Chiaki; Shimizu, Tomio
 IN
     Toyo Rubber Industry Co., Ltd., Japan
 PA
 SO
     Jpn. Kokai Tokkyo Koho, 6 pp.
     CODEN: JKXXAF
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     Patent
 LΑ
     Japanese
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 PI JP 05016273
PRAI JP 1991-198856
                     A2 19930126
                                       JP 1991-198856 19910711
                     19910711
    ANSWER 39 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN 1992:497364 CAPLUS
DN 117:97364
TI Microencapsulated alliins and allicins and fiber structures containing
     them
IN Murata, Taro
PA Kanebo K. K., Japan
    Jpn. Kokai Tokkyo Koho, 6 pp.
SO
     CODEN: JKXXAF
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    JP 04108728 A2 19920409
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                                      JP 1990-226314 19900827
PRAI JP 1990-226314
                        19900827
L6
    ANSWER 40 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
    1991:431053 CAPLUS
DN
    115:31053
TI
    Neckties or ribbons with lasting fragrance
IN
    Ono, Hiroshi; Tokuoka, Shuji
    Kanebo, Ltd., Japan
PA
    Jpn. Kokai Tokkyo Koho, 5 pp.
SO
    CODEN: JKXXAF
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    Patent
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LΑ
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     JP 03064504 A2 19910319
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                                      JP 1988-90491 19880413
 PRAI JP 1988-90491
                     19880413
     ANSWER 41 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1991:44514 CAPLUS
 DN
     114:44514
 ΤI
     Fragrant leather substitutes
 IN
     Makino, Shozo; Ito, Akira
 PA
     Kanebo, Ltd., Japan
     Jpn. Kokai Tokkyo Koho, 4 pp.
     CODEN: JKXXAF
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     Patent
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     Japanese
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 PΙ
    JP 02221468
                   A2 19900904
                                      JP 1989-39286 19890221
PRAI JP 1989-39286
                        19890221
     ANSWER 42 OF 48 CAPLUS COPYRIGHT 2003 ACS
    1990:574024 CAPLUS
    113:174024
     Fragrant curtains
    Ono, Hiroshi; Nunoo, Toshiichi; Mudagami, Shogo; Yamauchi, Toshio; Omori,
    Akiko
PA
     Kanebo, Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 5 pp.
    CODEN: JKXXAF
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    Patent
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    Japanese
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    JP 02055010 A2 19900223
                                     JP 1988-206618 19880819
PRAI JP 1988-206618
                    19880819
L6
    ANSWER 43 OF 48 CAPLUS COPYRIGHT 2003 ACS
    1990:100622 CAPLUS
AN
DN
    112:100622
    Fibrous structure having a durable fragrance and a process for preparing
TI
    the same
    Ono, Akira; Fuse, Toshikazu; Miyamoto, Osamu; Makino, Shoso; Yamato,
IN
    Yoshihisa; Kametani, Hiroshi; Tokura, Susumu; Tanaka, Hiromi; Ito, Toru;
    et al.
PA
    Kanebo, Ltd., Japan
SO
    Eur. Pat. Appl., 30 pp.
    CODEN: EPXXDW
DT
    Patent
IΑ
    English
FAN.CNT 2
                 KIND DATE
    PATENT NO.
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    EP 328937 A2 19890823
EP 328937 A3 19900718
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                                     EP 1989-101701 19890201
       R: CH, DE, FR, GB, IT, LI
    JP 04080121 B4 19921217
                                     JP 1988-23444 19880202
    JP 01260066
                  A2 19891017
                                     JP 1988-88669
                                                   19880411
                  A2 19891110
    JP 01280080
                                    JP 1988-105766 19880427
    JP 01292183
                  A2
                        19891124
                                    JP 1988-115617
                                                    19880512
    JP 02006671
                  A2 19900110
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JP 1988-121140 19880518

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JP 02006672 A2 19900110 JP 1988-122299
JP 02041477 A2 19900209 JP 1988-145687
JP 07049628 B4 19950531
US 4917920 A 19900417
                                                          19880519
                                                         19880615
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  PRAI JP 1988-23444
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      JP 1988-88669
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      JP 1988-121140
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      JP 1988-122299
                           19880519
      JP 1988-145687
                           19880615
      US 1989-302435
                           19890126
 1.6
     ANSWER 44 OF 48 CAPLUS COPYRIGHT 2003 ACS
 AN
     1990:79359 CAPLUS
 DN
     112:79359
     Fragrant elastic nonwoven fabrics with lasting fragrance
 ΤI
      Ogawa, Yasuhiro; Yamauchi, Toshio; Omori, Akiko
 IN
 PA
      Kanebo, Ltd., Japan
 SO
      Jpn. Kokai Tokkyo Koho, 4 pp.
      CODEN: JKXXAF
 DT
      Patent
 LΑ
     Japanese
 FAN.CNT 1
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                                        APPLICATION NO. DATE
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     JP 01272875
                      A2
                           19891031
                                        JP 1988-100891 19880422
 PRAI JP 1988-100891 19880422
     ANSWER 45 OF 48 CAPLUS COPYRIGHT 2003 ACS
 ΔN
     1988:407939 CAPLUS
 DN
     109:7939
 ΤI
     Coated fabrics with improved functional properties
 ΤN
     Hatada, Tsuyoshi; Mitsuyoshi, Akito; Masuda, Satoshi
     Toray Industries, Inc., Japan
 PA
     Jpn. Kokai Tokkyo Koho, 6 pp.
 SO
     CODEN: JKXXAF
DT
     Patent
LA
     Japanese
FAN.CNT 1
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                 KIND DATE
                                       APPLICATION NO. DATE
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     JP 63012765 A2 19880120
                                         JP 1986-155985
                                                         19860704
PRAI JP 1986-155985
                         19860704
L6
     ANSWER 46 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
     1975:113152 CAPLUS
DN
     82:113152
TI
     Treating synthetic fiber fabrics to impart to them
     creaseproofness combined with water-absorbing property
     Hosokawa, Kenjiro; Ida, Toshiya; Matsui, Mitsuo
IN
     Kanebo, Ltd.
PA
SO
    Jpn. Tokkyo Koho, 7 pp.
     CODEN: JAXXAD
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    Patent
LΑ
    Japanese
FAN.CNT 1
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                   KIND DATE
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PΙ
    JP 49035113
                   B4 19740919
                                        JP 1970-77270 19700903
PRAI JP 1970-77270
                         19700903
1.6
    ANSWER 47 OF 48 CAPLUS COPYRIGHT 2003 ACS
AN
    1974:146932 CAPLUS
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DN 80:146932 TI

Solvent dyeing of polyester with microcapsulated dyes

Imada, Kunihiko; Sueda, Yoshihisa; Abeta, Sadaharu; Yamada, Eiji IN

Sumitomo Chemical Co., Ltd. PA

SO Jpn. Kokai Tokkyo Koho, 4 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE -----PI JP 48092665 A2 19731201 PRAI JP 1972-23696 19720307 JP 1972-23696 19720307

ANSWER 48 OF 48 CAPLUS COPYRIGHT 2003 ACS

AN 1961:11111 CAPLUS

DN 55:11111

OREF 55:2164i,2165a

TI Rubber-fiber-ceramic compositions for rollers for impregnating

IN Rockoff, Joseph

PA Dayton Rubber Co.

DTPatent

LΑ Unavailable

FAN.CNT 1

PATENT NO. KIND DATE PATENT NO. KIND DATE APPLICATION NO. DATE
DE 1031262 19580604 DE DE 1031262 PΙ

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COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 107.24 107.45

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SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations
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HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ----- HIT RN and its text modification
HITSTR ----- HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ----- HIT RN, its text modification, its CA index name, its
             structure diagram, plus NTE and SEQ fields
FHITSTR ---- First HIT RN, its text modification, its CA index name, and
             its structure diagram
FHITSEQ ---- First HIT RN, its text modification, its CA index name, its
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KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrence of hit term and field in which it occurs
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HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

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         985603 S FILM
          11810 S SOLID SPHERICAL PARTICLES OR HOLLOW PARTICLES OR MICROCAPSULE
L4
         298870 S CERAMICS OR SILICONE ELASTOMERS OR POLYURETHANES OR NITRILE R
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L6
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L7
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L11
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L12
            189 S L1 AND L2 AND L4
L13
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L14
              0 S L13 AND L10
L15
              0 S L4 AND L10
L16
              1 S L4 AND L7
L17
             10 S L1 AND L3 AND L4 AND L5
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L13 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2003 ACS

AB The lightwt. substrate, showing HCHO release prevention, is manufd. by (a) sandwiching of a porous core between 2 webs impregnated with diallyl phthalate resin and/or an unsatd. polyester contg. expandable thermoplastic fine spheres and (b) hot press molding of the resulting laminate so that the resins penetrate into pores in the porous core. Thus, a sheet of glass paper (EPM 4025) laminated with glass chopped strand mats was impregnated with a mixt. of diallyl phthalate (Daiso Dap) 10, unsatd. polyester 90, microcapsules (F-46) 20, Bz202 3.5,

MePh 65, and iso-Pr alc. 35 parts and dried at 60-100.degree. to give an expandable sheet then a paper honeycomb structure was sandwiched between 2 of the sheets and pressed at 150.degree. for 60 s to give a substrate showing enough adhesion among the sheets and the honeycomb structure.

- L13 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The surface treatment process is based on dispersions of <1 .mu.m diam. microcapsules, dispersant, photoinitiator, and crosslinking agent; fibers or textiles are impregnated with the dispersion and exposed to UV light to effect linking of discrete microcapsules to functional group sites on the fiber surface. The dispersant is selected from ionic, nonionic, or amphoteric surfactants and wetting agents or their mixts.; the crosslinking agent is selected from vinyl and acrylic compds. or their mixts. The active agent in the microcapsules is selected from C16-22 aliph. hydrocarbon oils, poly(ethylene glycol) or their mixts. and conveys thermal insulation characteristics to textiles with a uniform distribution of microcapsules on their surface. Microcapsules with shell of bisphenol-A polycarbonate and eicosane as active agent were dispersed in aq. soln. of 2 g/L sodium dodecylsulfate and  $1 \, \text{g/L}$  Triton-X 100 dispersants, dipropylene glycol diacrylate as linking agent covering the surface of the microcapsules, and benzophenone photoinitiator. The dispersion is applied onto a fabric in 4 stages by padding, water from the dispersion is removed in a drying stage, and the microcapsules are attached to the fabric by exposure to UV light under N for 2 min. The fabrics showed storage and maintenance of heat of about 3 kJ/m2 at about 37.degree..
- L13 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB A substrate is hot pressed with a color changeable sheet, which comprises a hot-melt resin film m. 60.degree.-80.degree. and a layer thereon contg. a color changeable pigment and a binder resin. Thus, an Elphan UH (I) film was coated with a color nonchangeable white pigment layer, printed with a UV-curable color nonchangeable blue ink to form a blue image, coated with a urethane ink (colorless at >30.degree. and black at <30.degree.) contg. color changeable microencapsulated pigments to hide the blue image, coated with an acrylic polyol protective layer, and hot pressed on a T shirt on the I side. The T shirt showed a black color at <30.degree., and at >30.degree., the black disappeared and blue appeared.
- L13 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The invention relates to a method for acaricidal and microbicidal AR treatment of textile materials, a compn. of microcapsules of neem oil, specifically for the treatment above and a bioactive textile material thus obtained. In particular, the invention relates to industrial and com. treatment of fabrics and related products and more particularly to textile materials made from natural fibers such as cotton, or synthetic fibers, or mixed fibers such as polyester/cotton. The aim of the invention is a method for acaricidal and microbicidal treatment of a textile material. Said aim is achieved, whereby microcapsules contg. neem oil are fixed on said textile material. The microcapsule are based on urea resin, and the Neem oil treatment compns. contain a binder such as polyurethanes or polysiloxanes to increase the heat resistance of the microcapsules and provides for good adhesion of the microcapsules to the textiles.
- L13 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The sheets comprise a backing sheet of a superfine fiber (.ltoreq.0.5 dtex) nonwoven fabric filled with an elastomer and an elastomer covering contg. .gtoreq.80% microcapsules filled with a phase-changeable substance with m.p. -10 to 80.degree. Prepg. a polyethylene-nylon 6 sea-island fiber, forming into a nonwoven,

impregnating with a DMF soln. of ethylene oxide-propylene oxide-polyhexamethylene carbonate diol-4,4'-MDI-ethylene glycol copolymer, removing polyethylene component using hot PhMe, buffing with a sandpaper, coating with a polyurethane adhesive, attaching a release paper coated with a compn. contg. Himuren X 3040, polyurethane-urea-encapsulated n-paraffin (temp. retention 25.degree.), colorant, MEK, PhMe, and water to the adhesive side, drying, heating 30 min at 50.degree., removing the release paper, gravure coating with a poly(amino acid)-polyuethane soln., and rubbing in 80.degree. water gave a grain-surface synthetic leather for sofa materials with good touch and softness.

- L13 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The heat shock-absorbing materials (A) comprise sheets contg. AB microcapsules contg. heat shock-absorbing substances and show heat shock absorption coeff. .gtoreq.1.2, or the heat-shock absorbing materials comprise A materials having the microcapsules having particle diam. 5-50 .mu.m, or the heat shock-absorbing materials comprise A materials contg. a polymer binder film, or the heat shock-absorbing materials comprise A materials having .gtoreq.1 side contg. a polyurethane layer and/or PTFE layer, or the heat shock-absorbing materials comprise A materials showing water vapor permeation rate 1000 g/m2-24 h as detd. by CaCl2 method and showing water resistance .gtoreq.500 mmH2O. The heat shock-absorbing fabrics are prepd. by laminating A materials on .gtoreq.1 side of the fabrics. The heat-shock absorbing fabrics are useful for insulated clothings and sportswear. release paper was coated with Himuren Y-210B (moisture-permeable polyurethane) 100, toluene 50, n-octadecane (I)-contg. microcapsule 50 parts and dried to give a film with I content .apprx.50 g/m2. The film was coated with a compn. contg. US 642 (moisture-permeable polyurethane) 100, toluene 50, Coronate HL (polyisocyanate) 10, and catalyst 1 part in a dotted form, pressed together with a nylon tricot for 5 s at 100.degree., and kept 48 h at 60.degree. to give a laminated fabric showing heat shock absorption coeff. 2.8 as detd. by increasing the temp. of the material from 25.degree. to 35.degree. and exhibiting heat shock coeff. 2.3 as detd. by decreasing the temp. of the material from 25.degree. to 15.degree..
- L13 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The multi-component fiber comprises a fiber body formed from many elongated members, gtoreq.1 of the elongated members contg. a dispersed temp. regulating phase change material. Thus, a core sheath fiber contained (a) polyethylene core fiber contg. microcapsules of phase change material blended with fiber grade polypropylene and (b) a polypropylene or nylon 6 sheath. The multi-component fiber may be used in textiles, apparel, footwear, medical products, containers and packagings, buildings, appliances, and other products.
- L13 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The slip-resistant fabrics (A) comprise fabric base AB materials having one or two sides coated with binder polymers contg. microcapsules having particle diam. 5-200 .mu.m, or the slip-resistant fabrics comprise A fabrics having the binder polymers consisting of acrylic polymers or polyurethanes, or the slip-resistant fabrics comprise A fabrics having the thickness of the binder polymer coatings <50 .mu.m. A woven nylon taffeta was dyed with an acid dye in yellow shade, treated with aq. 5% Asahiguard AG 710 (water repellent), coated on one side with a liq. (B) contg. acrylic acid ester copolymer 100, expandable acrylonitrile polymer microcapsules 6, and Mitec NY 710A (crosslinking agent) 2 parts to coating wt. 30 g/m2, subsequently coated with B liq. to coating wt. 30 g/m2, and dried. The coated fabric was heated 1 min at 170.degree. to expand the microcapsules and treated with a soln. contg. Asahiguard AG 5690 (water repellent) to give a slip-resistant fabric with the coating layer contg. microcapsules with

diam. 10-120 .mu.m and showing soft handle and lightwt. and exhibiting frictional coeff. 1.5 initially and 1.2 after 10 washings.

- L13 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The fabrics have waterproof resin films contg.

  microcapsules (particle size 10-200 .mu.m) and IR absorbers.

  Thus, a nylon fabric was treated with Asahiguard AG 710 (water repellent) and coated with an acrylate resin compn. contg. tin antimonate and thermally expandable microcapsules (acrylonitrile polymers contg. pentane) to give a waterproof heat-retaining fabric.
- L13 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The thermochromic fabrics (A) have a thermochromic layer AB comprising binder polymers and thermochromic pigments dispersed in the binder and have the surface and back of the fabrics and the thermochromic layer treated with a water-repellent finish, or the thermochromic fabrics comprise A fabrics having the water-repellent finish comprising water-repelling fluoropolymers and showing surface tension 10-50 mN/m, or the thermochromic fabrics comprise A fabrics having water-repelling fluoropolymer content 2-50%. The thermochromic fabrics are useful for clothings or surface materials for dolls, swimsuits, artificial flower, and tablecloths. A polyester tricot was screen printed with a compn. contg. 25 parts microencapsulated pigment having blue hue at .ltoreq.15.degree., 50 parts acrylic polymer emulsion, and 4 parts ethyleneimine-type crosslinker and cured 5 min at 120.degree.. The fabric was treated with an aq. liq. contg. 10% NK Guard NDN-7 (I; fluoropolymer water repellent, solids 20%) and 1% blocked isocyanate to give a fabric with I content 2% (on fabric) and surface tension 20 mN/m and showing blue color on immersing a swimsuit of the  ${\it fabric}$  in H2O at .ltoreq.15.degree. and exhibiting white color on immersing the swimsuit in H2O at .gtoreq.30.degree..
- L13 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title laminates, with lightwt. and useful for garments, skiwear, tents, etc. (no data), comprise a base fabric (e.g., of polyamide fibers, polyester fibers), on .gtoreq.1 surface laminated with a moisture-permeable, waterproof, and heat-insulating resin film (e.g., of polyether-polyurethanes) contg. microcapsules (e.g., pentane encapsulated by polyacrylonitrile) and/or an IR ray absorbing agent (e.g., Zn antimonate), and optionally a releasing paper.
- L13 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB A heat-storing dotted sheet is characterized in that dots are formed on the surface of base material in a sheet form by the use of a synthetic resin contg. heat-storing capsules comprising micro-capsules and, contained therein, a heat-storing material. The dotted sheet has heat-storing property in combination with another function.
- L13 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Insecticidal terpenes are treated with cellulose and emulsified to prep. insecticides. Thus, 30 parts terpenes contg. 58-65% .alpha.-pinene and 25-35% .beta.-pinene was treated with 10 parts cellulose, emulsified, and used to impregnate a cotton bathrobe.
- L13 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2003 ACS
- Title products contain 3-50% thermoplastic resin-coated NH4 polyphosphate (TA). Title agents are mixts. of 100 parts synthetic resin emulsions and 10-100 parts TA. A polyester cloth was spread with a mixt of 100:50 AA 80 and TA, rolled, and dried at 80.degree. to form a cloth with good self extinguishment ability initially and after soaking in boiling water for 5 min.

- L13 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The present invention provides a partially coated fiber strand comprising many glass fibers having a coating compn., the coating comprising >20% of many particles selected from inorg. particles, org. hollow particles, composite particles, and mixts. wherein the particles have a Mohs' hardness value which does not exceed the Mohs' hardness value of the glass fibers. Thus, a glass fiber coated with the above coating compn. was dried, twisted to form a yarn and wound onto bobbins exhibited minimal sizing shedding.
- L13 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The present invention provides a partially coated fabric comprising .gtoreq.1 fiber strand comprising many glass fibers, the coating comprising >20% of many particles selected from inorg. particles, org. hollow particles, composite particles, and mixts. wherein the particles have a Mohs' hardness value which does not exceed the Mohs' hardness value of the glass fibers. Thus, a glass fiber coated with the above coating compn. was dried, twisted to form a yarn and wound onto bobbins exhibited minimal sizing shedding.
- L13 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2003 ACS
- A prosthetic heart valve resistant to tissue overgrowth following implantation comprises a sewing ring and a housing component enclosing a valve component, wherein a member selected from sewing ring, a housing component, and a valve component contains at least one biol. active material in an amt. sufficient to prevent the infiltration of fibrous tissue ("pannus") from the host into the structure of the prosthetic valve. Preventing or decreasing the overgrowth of the prosthetic valve by pannus reduces the complications assord. with the implantation and use of prosthetic heart valves. The sewing ring comprises a polymeric material selected from plastics, rubbers, or fabrics. The fabric comprises a material selected from thermoplastic polyurethanes, nylons, polypropylene, polytetrafluoroethylene, polyesters, polyether-polyester block copolymers, polyamides, polyimides, polyolefins, synthetic hydrocarbon elastomers, and natural rubber. The biol. active material is selected from a group consisting of antithrombotics, antiinflammatories, corticosteroids, antimicrotubule agents, antisense oligonucleotides, antineoplastics, antioxidants, antiplatelets, etc. The artificial heart valve components are at least partially covered with a coating for release of biol. active material in the form of gels, foams, suspensions, microcapsules, solid polymeric support and fibrous structures.
- L13 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Carpets contain microencapsulated insecticides and carriers. Thus, microcapsules contained diethyltoluamide 25, di-Bu adipate 5, a nonionic surfactant 3, water 60, and a polyurethane shell 7 parts.
- L13 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Title decorative compn. for coating the **textile** (e.g., glass fiber)-finished surfaces of a building comprises (A) a water-resistant resin emulsion (acrylic resin Liveall Mighty), (B) inorg. binders (alkali silicates), (C) pulverized natural stones (granite), (D) decorative powder aggregates, (E) ultrafine hollow ceramic particles, and (F) pigments (titania).
- L13 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The heat-retentive fabrics comprise fabrics coated with hygroscopic polymer (A) particles exhibiting temp. increase .gtoreq.0.5.degree. on absorption of moisture or H2O by the particles, or the heat-retentive fabrics comprise fabrics having A particles adhered to the fabrics by binders or binders contg. amino resin particles or silica particles. The fabrics are useful for cold-protective clothings. A woven polyester taffeta was

treated with a soln. contg. Asahiguard AG 710 (water repellent), squeezed, dried, and heat-set at 170.degree.. The water-repellent **fabric** was coated on one side with a soln. contg. 40% (solids) hygroscopic polymer particle emulsion 10, 20% acrylonitrile-Bu acrylate-Et acrylate-2-hydroxyethyl methacrylate copolymer soln. 100, formaldehyde-urea copolymer 10, Resamine D-52 (crosslinking agent) 3, catalyst 1, toluene 10 parts and dried to give a heat-retentive **fabric** exhibiting temp. increase 0.6.degree. on heating the **fabric** in an oven for 1 h at 120.degree. and cooling the **fabric** in a desiccator at 20.degree.

- L13 ANSWER 21 OF 48 CAPLUS COPYRIGHT 2003 ACS

  AB The title decorative sheet comprises a thermally insulating polymer foam layer, a thermally insulating adhesive layer contg. hollow particles, and a decorative layer. The title component comprises the decorative sheet formed on a metal substrate. The decorative sheet and component have high heat-retaining ability and dew does not formed on them.
- L13 ANSWER 22 OF 48 CAPLUS COPYRIGHT 2003 ACS

$$(R^{5}) k \longrightarrow 0$$

$$| I |$$

$$| P - (CH_{2}) n - CHCO_{2}R^{3}$$

$$| CH_{2}CO_{2}R^{3}$$

$$| CH_{2}CO_{2}R^{3}$$

AB The title **fabrics** comprise perfume-contg. **microcapsules** and I [R3 = H, C1-4 alkyl, (R70)r; R5, R6 = H, C1-8 alkyl; R7 = ethylene, propylene or butylene group; r = 1-10; k, m = 0-4; n = 0-2], which are fixed by polyurethane binders. Thus, spraying an aq. dispersion comprising perfume-contg. **microcapsules**, I (R3 = CH2CH2OH; R5, R6 = H; n = 1) and polyurethane binder (MU 50) on a polyester **fabric** resulting in improved fire resistance.

Ι

L13 ANSWER 23 OF 48 CAPLUS COPYRIGHT 2003 ACS A custom-formable shoe insert comprises a conformable substrate layer, AB where at least a portion of the substrate layer is impregnated with a storage-stable, settable resin that sets after exposure to an activator; and an outer layer that is impervious to the settable resin but at least a portion of which is pervious to the activator. Addn. of octadecane-contg. urea-formaldehyde copolymer microcapsules to the insert provides a cooling effect. Thus, a soft resin from a compn. comprising Isonate 2143L 20.60, benzoyl chloride 0.06, Bu benzyl phthalate 10.00, Pluronic F 38 4.00, and 2,6-di(tert-butyl)-4-methylphenol 0.33 part, and a compn. comprising Polyol LHT 42 62.07, Antifoam 1400 0.20, Reactint yellow X 15 0.25, and 4-[2-[1-methyl-2-(4-morpholinyl)ethoxy]ethyl]morpholine 1.00 part were mixed and kneaded into an open-cell polyether-polyurethane foam piece (.apprx.0.95 cm x 10.2 cm x 30.4 cm, d. 1.4-1.6 lb/ft3) to form an insert. The insert was water-activated at room temp. by squeezing water into the insert, towel-dried and placed in a shoe, a human foot placed in the show in <1.5 min, the insert removed after 3.5 min and dried. The temp. under a person's arch while wearing the insert was 30.8-31.1.degree., compared with 28.1-28.5 for an insert contg. 7.8 g microcapsules, and 27.9-28.5 with no insert.

- L13 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2003 ACS AB The sheets are obtained by coating a resin compn. contg. inorg. hollow particles on a reinforcement substrate. Kneading 100 parts phenolic resin (BRL 240) with 10 parts acidic hardening catalyst (FRH 50), kneading with 20 parts obsidian hollow particles (diam. 0.1-0.5 mm), coating on an acrylic woven sheet-laminated silicone-treated release paper and drying provided a thermal insulating sheet.
- L13 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2003 ACS The nonwoven fabrics comprise fibers with denier per filament .ltoreq.0.5 and coated with photocatalyst semiconductors (A) with the nonwoven fabric and A in the sepd. state or coated with mixts. contg. polyurethanes (B) and A with A and B and/or the nonwoven fabric in the sepd. state. The nonwovens are useful for clothings, sheet materials, wall materials, automobile interior materials, and shoes. Poly(ethylene terephthalate) as islands and polystyrene (I) as the sea were together melt spun at 50:50 ratio, drawn, crimped, lubricated, dried, cut, made into a carded web, needlepunched to form a nonwoven sheet, treated with a soln. contg. partially sapond. poly(vinyl alc.) for 3 min at 90.degree., dried, treated with C2HCl3 to dissolve I, and dried. The nonwoven fabric was impregnated with a compn. contg. 52% polyether-polyurethane soln., 2% microcapsules contg. SiO2 and TiO2, and 46% DMF, immersed in a coagulating bath, washed in hot water, dried, sliced, buffed, and dyed with a disperse dye to give a gray suedelike leather substitute comprising fibers with denier per filament 0.04, polyurethane content 35%, and TiO2 content 1.6% and exhibiting NH3 odor absorption 100%, acetaldehyde odor absorption 88%, Me mercaptan odor absorption 85%, bacteria decrease value (passing value .gtoreq.2.2) 4.9 (0 washing) and 4.5 (10 washings) as detd. by a specified
- L13 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2003 ACS The bioactive textile comprises polyamide fibers and silk protein, with microcapsules embedded in the knit which contain a skin moisturizing agent and can be used as elastic support material, stockings, hose, etc., in direct contact with skin. An elastic bandage was made of polyamide and an emulsion of silk powder in a polyurethane resin; the active agent, a mixt. of vegetable oil-derived glycerol stearate was encapsulated in polymer microcapsules which were attached to the textile by a siloxane binder. The bandage was tested in 10 subjects, by applying to one leg while a conventional bandage was used in the other for a period five days, washing the bandage every night and monitoring the level of hydration of the skin.

testing.

- L13 ANSWER 27 OF 48 CAPLUS COPYRIGHT 2003 ACS The nonhalogen compns. having good fire resistance, film formability and AR film strength comprise phosphorus fireproofing agents (e.g., phenylene tetra-Ph phosphate) in microcapsules and thermoplastic resins (e.g., ethylene-vinyl acetate copolymer). The fire-resistant fabrics, useful for construction materials, tents, and canvas (no data), are manufd. by coated on .gtoreq.1 side of the fabrics (e.g., polyester fabric) with the compn.
- L13 ANSWER 28 OF 48 CAPLUS COPYRIGHT 2003 ACS The fabrics have coatings contg. hollow particles (A) with diam. .ltoreq.1.0 .mu.m or A particles and IR absorbers. The fabrics are useful for insulated clothings and curtains (no data). A woven polyester taffeta was dyed, heat-set 30 s at 160.degree., coated on one side with an aq. compn. contg. 6.0% Impranil DLN (polyurethane, solids 40%) and 80.0% aq. dispersion (solids 40%) contg. hollow acrylic compd.-styrene copolymer particles to coating wt. 7 g/m2 and dried to give a coated fabric with heat retention amt. 19.0% and IR radiation temp. 32.0.degree..

- L13 ANSWER 29 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Substrates are coated with binders (at least polyurethanes) contg. pigments having low refractive index to form porous layers, which have hiding power in a dry state and become transparent or semitransparent on absorption of liqs. Thus, a nylon taffeta was printed with an ink contg. Epocolor FP 10 and a color-changing layer contg. Nipsil E 200A and Hydran AP 10.
- L13 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB Substrates are coated with binders contg. pigments having low refractive index to form porous layers, which have hiding power in a dry state and become transparent or semitransparent on absorption of liqs. Thus, a nylon taffeta was printed with an ink contg. Epocolor FP 10 and a color-changing layer contg. Nipsil E 200A and Hydran AP 10.
- L13 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2003 ACS
- Title microcapsulated agents comprise antistatic agent cores and TiO2-contg. polymeric shells. A PET fabric was treated with a compn. contg: a polymer binder and microcapsules (contg. Na dilauryl phosphate- and Na2 monolauryl phosphate-mixed agent with 3-30% TiO2-contg. polymer shell) to form a fabric with 1.5-g agent/100-g fabric and showing good elec. static prevention even after detergent washing, abrading, and exposing under sun light over 6 yr.
- L13 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The process comprises (a) mixing hinokitiol microcapsules or hinokitiol-adsorbed ceramic fine particles with silk proteins obtained by hydrolysis of cellulose-reactive N-methylolurea resins, urethane resins, or silk, (b) soaking cellulosic fibers to the resulting dispersions, (c) squeezing to dehydration ratio 60-100%, and (d) drying and heating. Thus, a microcapsule dispersion was obtained from hinokitiol 20%-emulsion 20, a glyoxal resin 50, and NH4Cl 5 g and H2O 1 L. A cotton fabric was soaked into the liq., squeezed, dried at 80-100.degree., and set at 150-160.degree. to give a product.
- L13 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title fabrics or substrates (e.g., leather) are prepd. by coating fabrics or substrates with mixts. (A) contg. polymer binders with glass transition temp. from -45.degree. to 45.degree., 30-500 parts microspheres contg. a phase change material per 100 parts polymer, 0.001% (on microsphere wt.) surfactants, 0.001-6% dispersants, 25-80% (on A) H2O, and 0-1% (on A) antifoaming agents. A transfer paper was coated with an aq. compn. contg. 17.80% microcapsules contg. octadecane and 38.50% natural rubber latex and pressed together with an extensible fabric to give a coated fabric with good water vapor transmission properties.
- L13 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The fiber structures to which are adhered microcapsules contg. physiol. active substances are manufd. by immersing fiber structures in treating baths composed of the microcapsules and polymer solns., heating, and anchoring. Thus, gelatin microcapsules with av. particle diam. 3 .mu.m contg. a 20% soln. of .gamma.-oryzanol in olive oil, prepd. by interfacial polymn., were mixed with SM 8702 (silicone) at 1:1 ratio to give a 10%-solids bath in which PET fabric was immersed, padded, and heated 2 min each at 60.degree. and 110.degree. to give a test piece with heat-retaining property, bactericidal properties vs. Staphylococcus aureus IFO 12732, UV-ray shielding properties, and washability.
- L13 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB The title cleaning roll consists of inorg. microcapsules, contg. silicone tackifier and rupturing upon pressure application, on a silicone

- oil-impregnated nonwoven <code>fabric</code> web. The <code>microcapsules</code> may be ruptured at 0.5-2.0 kg/m2. The cleaning roll showed easy removal of residual toner and paper dust from the fixing roll without scratching the fixing roll surface.
- L13 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2003 ACS
- AB A coating adapted to be applied to a substrate such as a fabric for enhancing the thermal storage properties consist essentially of a liq. polymeric binder and a plurality of leak-resistant microcapsules dispersed in the binder, the microcapsules contg. a temp. stabilizing means, and when the liq. polymer contg. microcapsules bonds with the substrate, upon application to the substrate, exhibits enhanced thermal stability when the coating thus applied is cured and is subjected to heat or cold. The temp. stabilizing means may comprise a phase change material selected from paraffinic hydrocarbons or from plastic crystals.
- L13 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title fabrics are prepd. by coating synthetic fabrics with mixts. comprising porous ceramics contg. fragrances and microcapsules contg. fragrances and cellulose powders. The fabrics are useful for diapers, sanitary napkins, medical underpads, hospital materials, bedding covers, curtains, wallpapers, and interior materials (no data). A nonwoven fabric of spun fibers from polyethylene as the sheath and a polyester as the core was prepd., embossed, spray coated with a liq. contg. 1:0.05 (wt. ratio) mixt. of lemon fragrance-contg. porous ceramic and cellulose powder (Serisshu KY-100S) and dried to give a fabric with lasting fragrance and water absorption 100% by a specified test.
- ANSWER 38 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title fabrics are prepd. by coating fabrics with liqs. contg. thermoplastic polymers and expandable microcapsules to form a porous cellular layer and then forming a porous polymer or nonporous moisture-permeable layer on the surface to solids content 1-10 g/m2. A nylon taffeta was coated with a liq. contg. Himuren X 3040 (I; polyurethane), Resamine X (II; crosslinking agent), and Microsphere F-50D, dried, coated with a liq. contg. I and II, and heated at 130.degree. to foam the first layer and give an insulative water-resistant fabric with good moisture permeability.
- ANSWER 39 OF 48 CAPLUS COPYRIGHT 2003 ACS

  Microencapsulated alliin, allicin, and their derivs. are adhered to fibers by polymeric binders. The microcapsules are gradually broken down and show their physiol. activities, such as microbicidal activity, accelerating blood circulation, etc. Volunteers with recurrent history of athlete's foot wore socks contg. microencapsulated thiamin propyl disulfide (which was bound to the textile by using epoxy-modified di-Me siloxane) for .apprx.2 mo to show no development of athlete's foot.
- ANSWER 40 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title neckties or ribbons are prepd. by coating neckties or ribbons with 2-1:1-5 (wt. ratio) mixts. of microcapsules and silicones to coating content 0.3-7.0%. Thus, a silk necktie was padded with a liq. contg. 10 g/L urea resin microcapsules contg. fragrance and 30 g/L epoxy-modified di-Me siloxane, dried, and heat treated 1 min at 140.degree. to give a washfast fragrant necktie with coating content 1.8%.
- ANSWER 41 OF 48 CAPLUS COPYRIGHT 2003 ACS

  AB Leather substitutes with lasting fragrance are prepd. by coating base fabrics with compns. contg. polymers and fragrance-contg. microcapsules to form a porous surface layer. Thus, a tricot of

bicomponent **fibers** consisting of nylon 6 and PET was napped, treated with benzyl alc. to sep. the components, coated with a compn. contg. polyurethane (Crisvon 8166, solids 30%) 100, DMF 20, and microcapsule 1 part, treated with a coagulating soln., washed, dried, and buffed to give a fragrant leather substitute with good washfastness of fragrance.

- L13 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2003 ACS
- The title curtains with lasting fragrance are prepd. by coating curtains with 2:(1-10) mixts. of microcapsules contg. fragrances and silicone binders to finish content 0.3-7.0%. Thus, a dyed waterproofed polyester drapery was padded with a liq. contg. 1:1 mixt. of jasmine-contg. microcapsules and epoxy-modified di-Me polysiloxane (I), dried, and heated 1 min at 120-130.degree. to give a curtain with finish content 1.4% and washfastness (JIS L-0217) 10 cycles and fragrance good, vs. 4 cycles and poor, resp., using a printing thickener instead of I.
- L13 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2003 ACS
- Title fibrous structure contains microcapsules encapsulating a perfume adhered thereto by a resinous binder, a wt. ratio of the microcapsules and resinous binder being 2-1:1-5, and an add-on amt. in the aggregate of the microcapsules and resinous binder being 0.3-7.0% based on wt. of a portion to which the microcapsules and resinous binder are adhered, of the fibrous structure . Ten kinds of dyed woven fabrics, knits, and yarns, were subjected to water repellent-softening process, the 10 samples were treated well at 10 g/L of an aq. dispersion of urea resin microcapsules contg. jasmine flower perfume (av. particle diam. 8 .mu.m, wall thickness 1 .mu.m) mixed with 10 g/L epoxy-modified di-Me siloxane resin, dewatered, dried and heated at 120-130.degree. for 1 min. The samples were forwarded to drying, finishing, and setting steps. Apparel was manufd. from these samples and dry cleaned. These samples showed good resistance to dry cleaning, optimal fragrance emission, and optimal bond.
- ANSWER 44 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The title fabrics are prepd. by coating nonwoven fabrics of elastic fibers with compns. comprising 2-1:1-5 (wt. ratio) mixts. of microcapsules contg. jasmine and silicone resin binders to mixt. content 0.3-7%. A needlepunched spandex nonwoven fabric was coated with a liq. contg. 10 g/L microcapsules contg. jasmine and 20 g/L epoxy-modified di-Me polysiloxane to 100% pickup and heat treated 1 min at 120-130.degree. to give a fragrant fabric with microcapsule content 0.45% and good fragrance retention after 11 washings.
- L13 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2003 ACS The title fabrics are prepd. by coating fabrics with AB compns. contg. polymer coating materials and porous microcapsules contg. functional agents and then heat treating the fabrics. Thus, a nylon taffeta was dyed, impregnated with a liq. contg. 10 g/L Asahiguard AG 710 (fluorocarbon waterproofing agent), dried, and heat treated 1 min at 170.degree. . The fabric was then coated with a compn. contg. urethane polymer 10, toluene 79.8, iso-PrOH 15, DMF 27, trimethylolpropane-hexamethylene diisocyanate adduct 0.4, and SiO2 microcapsules contg. 40% fluorocarbon water-repellent emulsion 3 parts to coating thickness 150 .mu.. The coated fabric was dried and heat treated 1 min at 170.degree. to give a water-resistant fabric with water vapor permeation rate 4800 g/m2-24 h and water resistance (JIS L-1079) 2000 mm H2O, vs. 1700 and 2000, resp., using no microcapsules.

- Waterproofing and antistatic finishes for synthetic **fabrics** giving good uniformity of application contain microencapsulated silicone, acrylic, or urethane prepolymers and solns. or dispersions of water absorbents. Thus, 30 g 0.6:1:2 polyoxypropylene triol-polypropylene glycol-TDI prepolymer (mol. wt. 10,000, NCO content 1.2%) in 70 g CH3CCl3 is stirred with 200 ml 10% water-absorbent soln. at 8000 rpm and left 24 hr to give a dispersion of 10-30 .mu. **microcapsules** with shell-core wt. ratio 1:800. The dispersion is dild. with 1400 ml H2O, applied to nylon tricot **fabric**, pressed at 1.2 kg/cm2 to rupture the capsules, dried 5 min at 100.degree., and cured 3 min at 150.degree. to give a creaseproof **fabric** with good water absorption.
- ANSWER 47 OF 48 CAPLUS COPYRIGHT 2003 ACS

  An org. dye insol. or slightly sol. in chlorinated hydrocarbon at room temp. is ground in the presence of a liq. vehicle or a melted waxy material m. 35-180.deg. and microencapsulated with the waxy material. The microcapsules are used to solvent-dye polyester textiles

  Thus, a mixt. of red dye (I) [34346-69-5] 10, silicone oil 500, and anionic surfactant 0.5 part was milled at 130.deg., mixed with 10 parts low-mol. wt. polyethylene, and cooled to 40.deg. with gradually slowing agitation to give microcapsules. A Tetoron textile

  (100 parts) was dyed 60 min in a bath of 5 parts capsule in 1000 parts CC12:CC12 at 120.deg. in level, bright red shades.
- ANSWER 48 OF 48 CAPLUS COPYRIGHT 2003 ACS

  The roller has a butadiene-rubber surface filled with fibers and crushed hollow ceramic particles, e.g. a copolymer 100 consisting of 55 parts butadiene and 45 parts acrylonitrile, fragile hollow particles 120, phthalate-resin staple fibers (1.5-12 mm. long) 25, ZnO 5, diphenylguanidine 0.25, clay 50, dibenzothiazolyl disulfide 1, S 2, and a softener (tritolyl phosphate) 50 parts by wt. The hollow bodies are obtained by passing milled and sieved clay or clay slate through a vertical oven. The particles pass through a gas-air flame at approx. 1500.degree., melt, and are recovered at the bottom of the kiln. The particles are hollow and mostly spherules of 0.25-5 mm. diam. When the roller is readily vulcanized, it is turned on a lathe. This causes the spherules in the outer layer to be crushed and to fall out, leaving a porous surface.

=> log y COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 178.30	SESSION 178.72
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -37.76	SESSION -37.76

STN INTERNATIONAL LOGOFF AT 15:06:54 ON 18 MAR 2003

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
0.21 0.21

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